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Summary

A series of thrust-vectored axisymmetric ejector nozzles were designed and experimentally tested for internal performance and pumping characteristics at the NASA Langley Research Center. These ejector nozzles used convergent-divergent nozzles as the primary nozzles. The model geometric variables investigated were the primary nozzle throat area, the primary nozzle expansion ratio, the effective ejector expansion ratio (the ratio of shroud exit area to primary nozzle throat area), the ratio of minimum ejector area to primary nozzle throat area, the ratio of ejector upper slot height to lower slot height (measured on the vertical centerline), and the pitch thrust vector angle. The primary nozzle pressure ratio was varied from 2.0 to 10.0, depending on the primary nozzle throat area. The corrected ejector-to-primary nozzle weight-flow ratio was varied from 0 (no secondary flow) to approximately 0.21 (21 percent of the primary weight-flow rate), depending on the ejector nozzle configuration. In addition to the internal performance and pumping characteristics, static pressures were obtained on the shroud walls.

The results of this study indicate that without secondary flow, the addition of shrouds reduced the performance (gross thrust ratio) of the primary nozzles. The shrouded nozzles acted as convergent-divergent nozzles with expansion ratios equivalent to the ratio of the shroud exit to the primary nozzle throat. Discontinuities in the thrust ratio trends occurred at low primary nozzle pressure ratios, and these discontinuities were mitigated by decreasing expansion area ratio. The addition of secondary flow increased the gross thrust ratio over the primary nozzle pressure ratio range. The mid-to-high range of secondary flow provided the most overall improvements, and the greatest improvements were seen for the largest ejector area ratio. Thrust vectoring the ejector nozzles caused a reduction in gross thrust coefficient and discharge coefficient. With or without secondary flow, the vectored ejector nozzles produced thrust vector angles that were equivalent to or greater than the geometric turning angle. With or without secondary flow, spacing ratio (ejector passage symmetry) had little effect on thrust ratio, discharge coefficient, or thrust vector angle. For the unvectored ejectors, a small amount of secondary flow was sufficient to reduce the pressure levels on the shroud, thus indicating that secondary flow can effectively cool the nozzle shroud. For the vectored ejector nozzles, a larger amount of secondary air was required to reduce the pressure levels to provide cooling.

Introduction

Several types of axisymmetric nozzles are used to produce thrust for aircraft propulsion systems. The convergent nozzle, which has the advantage of simplicity and light weight, is currently used on subsonic cruise aircraft (commercial or military) in which the nozzle pressure ratios are relatively low. For enhanced performance at higher nozzle pressure ratios, convergent-divergent nozzles are desirable. Ideally, the nozzle expansion ratios should be varied continuously for the convergent-divergent nozzle as a function of nozzle pressure ratio at various flight conditions to provide optimum thrust. With the increased temperatures that are associated with afterburners which are normally utilized for operation at higher nozzle pressure ratios and Mach numbers, a need arose for large quantities of cooling flow. Ejector nozzles were developed to provide this cooling, and in some instances the ejectors improved nozzle performance.

During the late 1940’s and early 1950’s, an extensive amount of research was done in the area of cooling-air ejectors. This earlier research was for conical ejector nozzles (refs. 1–4), cylindrical ejector nozzles (refs. 5 and 6), and divergent ejector nozzles (refs. 7 and 8). All these studies were made by using a convergent nozzle as the primary nozzle. Reference 7 showed that each type of ejector had its own merits, depending on the amount of secondary flow, the primary nozzle pressure ratio, and certain other parameters such as spacing and expansion ratios.

Axisymmetric convergent-divergent ejector nozzles (convergent primary and divergent shrouds) were used on turbojet engines during the 1950–1970 era. However, the later development of military turbofan engines along with improved high-temperature materials essentially eliminated the need for ejector nozzles. Fan air became the primary cooling air source for the nozzle hot sections. Also, the aircraft design Mach numbers were generally limited to Mach numbers less than 2.0 and this, in turn, limited the temperature problems encountered.

The current trend in engines for advanced multi-mission aircraft is toward low bypass ratios and high specific thrust cycles. This trend tends to increase exhaust gas temperatures and nozzle size and reduces the amount of cooling air available. Also, increased emphasis on weapon system survivability has increased the nozzle cooling requirements. These factors have renewed the interest in ejector nozzles.

An extensive literature search conducted by the authors of references 9 and 10 found that a large database was available for unvectored axisymmetric ejector nozzles, but a large technology void existed for nonaxisymmetric ejector nozzles and vectored ejector nozzles. Because future aircraft will tend to use thrust vectoring nozzles for control augmentation (ref. 11), a new experimental investigation to study the internal performance and pumping characteristics of vectored axisymmetric ejector nozzles was undertaken. These ejector nozzles had convergent-divergent primary nozzles and divergent shrouds. This investigation was conducted on the dual-flow test stand located in the static test facility of the Langley 16-Foot Transonic Tunnel. The model geometric variables investigated were the primary nozzle throat area, the primary nozzle expansion ratio, the effective ejector expansion ratio (the ratio of shroud exit area to primary nozzle throat area), the ratio of minimum ejector area to primary nozzle throat area, the ratio of ejector upper slot height to lower slot height (measured on the vertical centerline), and the pitch thrust vector angle. The primary nozzle pressure ratio was varied from 2.0 to 10.0, depending on the primary nozzle throat area. The corrected ejector-to-primary nozzle weight-flow ratio was varied from 0 (no secondary flow) to approximately 0.21 (21 percent of the primary weight-flow rate), depending on the ejector nozzle configuration. In addition to the internal performance and pumping characteristics, static pressures were obtained on the shroud walls.

Symbols and Abbreviations

All forces (with the exception of resultant gross thrust) and angles are referenced to the model body axis.

AB	afterburner
A_e	shroud exit area (see table A1), in^2
A_{ej}	ejector area (difference in area based on d_1 and d_s shown in fig. 5(a)), in^2
A_i	primary nozzle exit area (see table A1), in^2
A_t	primary nozzle throat area (see table A1), in^2
A_e/A_i	ratio of shroud exit area to primary nozzle exit area (see table A1)
A_e/A_t	effective expansion ratio (see table A1)
A_{ej}/A_t	ratio of minimum ejector area to primary throat area (see table A1), in^2
A_i/A_t	primary nozzle expansion ratio (see table A1)
Config.	configuration
d_e	internal diameter at exit of shroud (see fig. 5(a)), in.
d_i	internal diameter at exit of primary nozzle (see fig. 5(a)), in.
d_s	minimum diameter of shroud (see fig. 5(a)), in.
d_t	primary nozzle throat diameter (see fig. 5(a)), in.
d_1	external diameter at exit of primary nozzle (see fig. 5(a)), in.
d_2, d_3	other shroud diameters (see fig. 4(c)), in.
F	measured thrust along body axis of either isolated primary nozzle or ejector nozzle, positive in forward direction, lbf
F_i	ideal isentropic thrust of ejector nozzle system, $F_{i,p} + F_{i,s}$, lbf
F/F_i	thrust ratio
$F_{i,p}$	ideal isentropic thrust of primary system, $w_p\left\{\frac{RT_{t,j}}{g}\frac{2\gamma}{\gamma-1}\left[1-\left(\frac{1}{\text{NPR}}\right)^{(\gamma-1)/\gamma}\right]\right\}^{1/2}$, lbf
$F_{i,s}$	ideal isentropic thrust of secondary system, $w_s\left\{\frac{RT_{t,s}}{g}\frac{2\gamma}{\gamma-1}\left[1-\left(\frac{1}{\text{SNPR}}\right)^{(\gamma-1)/\gamma}\right]\right\}^{1/2}$, lbf
F_N	measured normal force, lbf
F_N/F_i	normal-force ratio
F_r	resultant gross thrust, $\sqrt{F^2 + F_N^2 + F_S^2}$, lbf
F_r/F_i	resultant gross thrust ratio
F_S	measured side force, lbf
F_S/F_i	side-force ratio
g	acceleration due to gravity $\left(1g \approx 32.174 \text{ ft/sec}^2\right)$
h_l	lower slot height (see fig. 5(a)), in.
h_u	upper slot height (see fig. 5(a)), in.
h_u/h_l	ratio of slot heights
L	length of shroud from exit of primary nozzle to exit of shroud (see fig. 2), in.
M	Mach number
M.S.	model station, in.
NPR	primary-jet nozzle pressure ratio, $p_{t,j}/p_a$
$(\text{NPR})_d$	design nozzle pressure ratio (NPR for fully expanded flow at nozzle exit)
p	local static pressure, psi
p_a	ambient pressure, psi
$p_{t,j}$	average primary-jet total pressure, psi
$p_{t,s}$	average secondary-jet total pressure, psi
R	gas constant, 1716 ft^2/sec^2-°R
r	radius of curvature (see fig. 4), in.
SNPR	secondary-jet nozzle pressure ratio, $p_{t,s}/p_a$
$T_{t,j}$	average primary-jet total temperature, °R
$T_{t,s}$	average secondary-jet total temperature, °R

w_i ideal weight-flow rate of primary jet, lbf/sec

w_p measured weight-flow rate of primary jet, lbf/sec

w_p/w_i primary nozzle discharge coefficient

w_s measured weight-flow rate of secondary jet, lbf/sec

x axial distance from exit of primary nozzle to pressure tap location, positive downstream (see fig. 4(e)), in.; also coordinate used to define radius of curvature (see fig. 4(c)), in.

x_s axial distance from exit of primary nozzle to minimum diameter of shroud (see fig. 2), in.

y coordinate used to define radius of curvature (see fig. 4(c)), in.

γ ratio of specific heats

δ geometric pitch vector angle measured from model centerline (positive angle produces positive normal force), deg

δ_p resultant pitch thrust vector angle, $\tan^{-1}(F_N/F)$, deg

τ ratio of ejector-flow-stagnation temperature to primary-nozzle-flow stagnation temperature, $T_{t,s}/T_{t,j}$

ω ratio of ejector flow to primary nozzle flow, w_s/w_p

$\omega\sqrt{\tau}$ corrected secondary-to-primary weight-flow ratio, $\frac{w_s}{w_p}\sqrt{\frac{T_{t,s}}{T_{t,j}}}$

Apparatus and Methods

Facility Description and Instrumentation

This investigation was conducted on the dual-flow (air-powered nozzle model) static test stand located in the static test facility of the Langley 16-Foot Transonic Tunnel. A sketch of the dual-flow test stand is shown in figure 1(a), and details of the system are shown in figure 1(b) with a vectored ejector nozzle configuration (consisting of outer cylinder, primary nozzle, and shroud) installed. A photograph of ejector nozzle configuration 20 installed on the test stand is shown in figure 1(c). The dual-flow system is an axisymmetric rig mounted on a six-component strain gauge balance. All model hardware downstream of M.S. 0.000 (see fig. 1(b)) is supported solely by the force balance, and as such it is referred to as “metric.” Four semirigid stainless-steel s-shaped air-supply tubes bridged the metric hardware to the nonmetric support frame. (See fig. 1(a).)

The primary jet flow was supplied from an external high-pressure air system that provided a continuous flow of clean dry air up to 15 lb/sec at a controlled temperature of about $540°\mathrm{R}$ at the primary nozzle. A pair of critical venturis located external to the test stand were used to measure the primary flow rate. From the venturis, the air passed through two flexible rubber hoses connected to the bottom of the test stand, through two of the s-shaped tubes, and then into the metric primary plenum (fig. 1). The air then passed through eight radially oriented sonic nozzles into the axial duct surrounding the balance (fig. 1(b)). From here, the air passed through a choke plate and an instrumentation section which contained two total-temperature probes and a total-pressure rake with nine probes. The measurements made at this station were used in the computation of primary ideal weight flow and thrust and primary nozzle pressure ratio. Then, the air passed into the primary nozzle of the ejector configuration and into the shroud where it interacted with the secondary air supply.

The secondary or ejector jet flow was supplied by a separate 3 lb/sec air system. A single subsonic venturi located external to the test stand was used to measure the secondary flow rate. No temperature control was available for this air supply, and therefore secondary total temperature in the ejector instrumentation section varied from approximately $460°\mathrm{R}$ to $530°\mathrm{R}$, depending on the time of day and the length of each run. Downstream of the venturi, the air line was split and the air passed through two flexible rubber hoses to the bottom of the test stand, through the other two s-shaped tubes, and then into the metric secondary plenum (fig. 1). The air then passed through 12 radially oriented sonic nozzles into an annular axial duct surrounding the primary air passage (fig. 1(b)). From here the air passed through a choke plate and instrumentation section containing two total-temperature probes and four total-pressure rakes with two probes each. Measurements made at this station were used in computing secondary nozzle pressure ratio (SNPR) and corrected secondary-to-primary weight-flow ratio $(\omega\sqrt{\tau})$. The details of these computations can be found in reference 12.

Models

The parameters shown in figures 2(a), 2(b), and 2(c) were used in the ejector prediction program discussed in references 9 and 10 and are considered to be the important ejector parameters. As the ejector system evolved from the conical ejector to the cylindrical ejector and then to the divergent ejector, the number of geometric parameters increased. To account for the complexity of using a convergent-divergent primary nozzle, the additional parameters shown in figure 2(d) were investigated.

The two primary throat areas were selected by using the parameters shown in figure 2 as guidelines, thus limiting the number of configurations tested. Throat areas of 3.500 and 6.000 in^2 were chosen to represent dry- and afterburner-powered nozzle configurations, respectively. The expansion ratio (A_i/A_t) of the primary nozzle was chosen to be 1.10 for both the dry and afterburner configurations. Later, four other primary nozzle configurations were designed that had expansion ratios of 1.20 and 1.30 for both the dry and afterburner configurations, respectively. This was accomplished by reducing the throat area, which changes the ratios that are based on A_t. Three effective expansion ratios (A_e/A_t) were selected for the dry- and afterburner-powered configurations. The spacing between the exit of the primary nozzle and the minimum area of the shroud (x_s) was fixed at 0.000 in., and the length of the shroud from the exit of the primary nozzle to the exit of the shroud (L) was fixed at a constant value of 2.685 in. for all the configurations. The ratio of ejector area (the difference in the area based on d_s and d_i in fig. 2(d)) to primary nozzle throat area (A_{ej}/A_t) was varied by factors of 2 and 3 over the original ratio. In addition to no secondary flow, three other corrected weight-flow ratios were selected for each configuration with constant A_{ej}/A_t ratios. Pitch thrust vector angles of $0°$ and $18°$ were chosen for testing. The design parameters for the selected configurations are presented in the appendix in table A1.

The ejector nozzle configurations consisted of the primary nozzle, outer cylinder, and shroud, as shown in figure 1(b). Photographs of one of the vectored ejector nozzle configurations are shown in figure 3. The configuration consisted of only one outer cylinder, which is detailed in figure 4(a), six unvectored primary nozzles (three for the dry and three for the afterburner-powered configurations), and two vectored primary nozzles (one each for the dry and afterburner configurations). Details of the primary nozzles are shown in figure 4(b). Six unvectored shrouds were used, three each for the dry and afterburner configurations (see fig. 4(c)), and six vectored shrouds were used, three each for the dry and afterburner configurations (see fig. 4(d)). The variations in h_u/h_l were obtained by making vertical adjustments in the appropriate shroud. Table A2 gives the matrix of model parts that are used to obtain the 28 selected configurations.

One static pressure tap was located on the top vertical centerline of the outer cylinder. The unvectored shrouds were instrumented with one row of static pressure taps along the top vertical centerline. The vectored shrouds were instrumented with two additional rows of pressure taps, one along the bottom vertical centerline and one along the side. These taps were located at the same x location for all rows. Details of the shroud static taps are shown in figure 4(e).

Vertical sectional views of all 28 ejector nozzle configurations through the model centerline are shown in figure 5. The parameters shown in figure 5 are given in table A3 for all the configurations.

Data Reduction

Forces and moments were measured with a six-component strain gauge balance located on the jet stand centerline. Each data point used in the computations was the average of 50 frames of data, taken at a rate of 10 frames per second. A set of corrections are applied to all balance force and moment measurements. Each balance component was initially corrected for model weight tares and isolated-balance interactions. Additional interactions were computed by recalibrating the balance after it was installed on the test stand because the s-tubes provided a new set of restraints to the balance. In addition to providing a set of "installed" interactions, this recalibration accounts for the effects of blowing the jet (pressurization) and nozzle throat area (momentum transfer).

The s-tubes were designed to be flexible enough to minimize the static restraints on the force balance, yet rigid enough to withstand the pressurization during jet operation and minimize the effect of pressurization on the static restraints. Residual tares still existed and were the result of the tendency of the s-tubes to deform under pressurization. These residual tares were determined by testing convergent calibration nozzles with known performance over a range of expected internal pressures and external forces and moments. A general procedure for computing these tares was discussed in more detail in reference 12, although the specific equations for determining the tares have been modified to correct for the interactions peculiar to the dual-flow static test stand. For the current test, the axial-force measurement was calibrated to within 1 percent of full-scale balance capacity. The remainder of the components were calibrated to within 0.5 percent of full-scale balance capacity.

These corrected forces and moments were used to compute the parameters used in the presentation of results, which consisted of thrust ratio (F/F_i), normal-force ratio (F_N/F_i), side-force ratio (F_S/F_i), resultant gross thrust ratio (F_r/F_i), discharge coefficient (w_p/w_i), and pitch thrust vector angle (δ_p). With the exception of resultant gross thrust ratio, all balance data are referenced to the model centerline. The secondary nozzle pressure ratio (SNPR), the ratio of secondary total pressure to primary total pressure $(p_{t,s}/p_{t,j})$, and the shroud static pressure ratios ($p/p_{t,j}$ and $p/p_{t,s}$) are presented also.

The force ratios F/F_i, F_N/F_i, and F_S/F_i are the ratios of the corrected measured thrust, normal force, and side force, respectively, along the body axis to the ideal thrust of the ejector nozzle system $(F_i = F_{i,p} + F_{i,s})$. The resultant gross thrust ratio (F_r/F_i) is the resultant of the corrected measured forces divided by the ideal thrust of the ejector nozzle system. The ideal thrust $(F_{i,p})$ of the primary flow is based on measured primary weight flow (w_p), primary-jet total pressure $(p_{t,j})$, and primary-jet total temperature $(T_{t,j})$. Ideal thrust $(F_{i,s})$ of the secondary flow is based on measured secondary weight flow (w_s), secondary-jet total pressure $(p_{t,s})$, and secondary-jet total temperature $(T_{t,s})$. The force and moment measurements of the ejector configurations include the thrust contribution of the secondary air system, and likewise the ideal thrust is based on the primary and secondary flows.

The nozzle discharge coefficient (w_p/w_i) is the ratio of measured primary weight flow to ideal primary weight flow and reflects the ability of the primary nozzle to pass exhaust flow. The discharge coefficient, which is reduced by any momentum and *vena contracta* losses (effective throat area less than A_t), does not account for secondary weight flow.

The resultant thrust vector angle (δ_p) is the calculated angle in pitch at which the resultant thrust vector is inclined to the nozzle axis. As indicated in the section entitled “Symbols and Abbreviations,” this angle is calculated from normal force and axial force and can be increased by either an increase in normal force or a decrease in axial force.

The independent flow parameters for this investigation were the primary-jet nozzle pressure ratio (NPR) and corrected secondary-to-primary weight-flow ratio $(\omega\sqrt{\tau})$. The primary nozzle pressure ratio is the average total pressure measured in the primary instrumentation section divided by atmospheric pressure. The NPR was varied in this investigation from 2 to 10, depending on the value of A_t of the primary nozzle. The corrected weight-flow ratio $(\omega\sqrt{\tau})$ is the ratio of the measured weight flow of the secondary flow to the measured primary weight flow, which is corrected for the difference in temperature. (Again, see the section on “Symbols and Abbreviations.”) The corrected weight-flow ratio was varied from 0 (no secondary flow) to approximately 0.21 (21 percent of the primary weight-flow rate). With no secondary flow, the primary jet was increased over the NPR range and with secondary flow, the primary jet was set at an NPR value and the secondary flow was adjusted to obtain the range of corrected weight-flow ratios.

Presentation of Test Results

The primary nozzle pressure ratio (NPR), the secondary nozzle pressure ratio (SNPR), the force ratios (F_N/F_i, F_S/F_i, and F/F_i), the gross thrust ratio (F_r/F_i), the discharge coefficient (w_p/w_i) of the primary nozzle, the pumping or secondary-to-primary total-pressure ratio $(p/p_{t,j})$, and the thrust vector angle (δ_p) are presented in the appendix in tables A4–A31 for all 28 configurations. The shroud static pressure ratios $(p/p_{t,j})$ are presented in tables A32–A59, and to help better understand the potential cooling effect of the secondary flow, the shroud static pressure ratios are also presented as $p/p_{t,s}$ in tables A60–A87.

A general discussion on ejector nozzles is presented in figure 6. In addition to the tabulated data, selected comparison plots are presented as follows:

Results and Discussion

General Discussion on Ejector Nozzles

The flow within an ejector nozzle is based on the mutual interaction between a high-energy stream (primary flow) and a low-energy stream (secondary flow). These two streams begin to interact at the primary nozzle exit. Five flow regimes may exist for an ejector nozzle, and they are listed as follows:

1. No secondary flow and low primary nozzle pressure ratio (fig. 6(a))

2. No secondary flow and higher primary nozzle pressure ratio (fig. 6(b))

3. Low secondary flow and low primary nozzle pressure ratio (fig. 6(c))

4. Low secondary flow and moderate primary nozzle pressure ratio (impingement) (fig. 6(d))

5. Higher secondary flow and low-to-moderate primary nozzle pressure ratio (fig. 6(e))

In order to better understand the internal flow fields that may be present in an ejector nozzle, the following discussion is presented in conjunction with figure 6. When the primary flow has a lower pressure ratio and no secondary flow occurs, the primary flow may not have enough energy to expand to the wall of the shroud and the nozzle flow may be completely separated. (See fig. 6(a).) Under these conditions, a region of dead or low-energy air occurs in the secondary-flow path and between the primary flow and the shroud wall. The primary flow will lower or “pump” the pressure in the secondary-flow path to levels below ambient. Along the shroud wall, the pressure will rise to be equal to ambient conditions at the shroud exit.

When the primary-flow pressure ratio is increasing, the pumping of the secondary-flow path will further reduce the pressure in the dead-flow region up to the point where the primary flow has enough energy to expand and impinge on the shroud. At this point (see fig. 6(b)), the secondary-flow path is isolated from the external ambient conditions and the pressures in the dead-flow region will be at a minimum. Further increases in primary-flow pressure ratio will simply raise the secondary-flow path pressure while the ratio of primary-to-secondary pressure will remain constant. The impingement point will move upstream in the nozzle as the higher energy primary flow will expand rapidly to the shroud. Once the primary flow is attached to the shroud, the ejector nozzle without secondary flow will behave like a conventional convergent-divergent nozzle with possible nozzle flow separation, depending on pressure ratio and expansion ratio. However, overexpansion losses might be greater in the ejector nozzles as compared with conventional nozzles because of the discontinuous surface and the low-pressure dead-flow regions.

When the nozzle operates as an ejector nozzle with secondary flow, a similar sequence of flow conditions is expected. When the primary flow is at a low pressure ratio but higher than the secondary-flow pressure, the primary flow will not have the energy to expand to the shroud wall. (See fig. 6(c).) In this case, the secondary flow will remain attached to the shroud wall as a low-energy sublayer (corresponding to the dead flow in the first discussion) that separates the primary flow from the shroud wall. The mixing boundary between the two flows will move closer to or farther away from the shroud wall, depending on the ratio of primary-to-secondary pressures. That is, higher secondary pressure will push the boundary away from the wall and vice versa.

As the primary-to-secondary pressure becomes sufficiently large, the primary flow will expand and impinge on the shroud wall and isolate the secondary flow from the external ambient conditions. (See fig. 6(d).) All the secondary flow is entrained into the primary flow through a mixing region in which a lower energy sublayer or boundary layer exists against the shroud wall. The impingement point and the mixing-region location will vary, depending on the primary-to-secondary pressure ratio.

If the secondary pressure is increased, the impingement point will move downstream and the secondary flow will choke $(M = 1.00)$ along the shroud. (See fig. 6(e).) The entire secondary flow may be choked and the shroud wall pressures will not be affected by the primary flow. At this point, a high-performance nozzle can have the high-pressure, high-temperature primary flow isolated from the nozzle wall, and an effective cooling mechanism may exist without causing excessive losses in nozzle efficiency or an increase in weight and complexity.

Effect of Shroud Presence (No Secondary Flow)

The effect of the different shrouds on gross thrust coefficients, pumping characteristics, and discharge coefficients is shown in figure 7 for the dry and afterburner configurations without secondary air. As a baseline, the primary nozzles were tested in an isolated mode, that is, without the shroud and outer cylinder. The gross thrust coefficients of the primary nozzles are typical of convergent-divergent nozzles. The peak thrust coefficients occur at an NPR near full expansion conditions $(\mathrm{NPR})_d$. The shrouded nozzles behave as convergent-divergent nozzles with expansion ratios of A_e/A_t. Typically, higher expansion ratio nozzles have lower performance at lower NPR values and higher performance at higher NPR values, as shown in figure 7. At low values of NPR, high-expansion-ratio shrouds allow ambient pressure to propagate into the nozzles through the boundary layer. This pressure causes shock-induced separation which increases the thrust (by creating a lower effective A_e) at the lower NPR values ($A_e/A_t = 1.76$ and 2.00). As noted in reference 9, separation within the shroud can cause a discontinuity in the gross thrust curve. Reference 9 states that this discontinuity is a function of nozzle area ratio and completely disappears as the area ratio becomes small. In fact, the nozzles with the smallest expansion ratio do not exhibit a discontinuity in resultant thrust performance at low NPR values.

The effect of the different shrouds on the pumping characteristics is shown in the center portion of figure 7. Even though the isolated primary nozzles have no pumping characteristics, the values of 1/NPR (ambient conditions) are shown as circular symbols. The pumping characteristics of the shrouded nozzles are typical of ejector nozzles in that the secondary total pressure is influenced by the primary total pressure in the NPR range up to approximately 4 for the dry-powered configurations and slightly higher for the afterburner-powered configurations. Once the primary flow has expanded to completely fill the shroud, the secondary cavity is completely sealed off from ambient conditions and the ratio of secondary total pressure to primary total pressure remains constant. As A_e/A_t and A_{ej}/A_t increase, the secondary cavity is pumped down to a lower pressure before the shroud is filled by the primary flow.

To help understand the effect of shroud expansion ratio (A_e/A_t) on gross thrust coefficient, the shroud static pressure distributions $(p/p_{t,j})$ for the unvectored dry-powered configurations without secondary flow are shown in figure 8(a). These pressures are on the top centerline of the shrouds and on the one tap that is located in the outer cylinder. The exit of the primary nozzle is at $x/L = 0$. The flow is fully detached from all three shrouds at $\mathrm{NPR} = 2$. The level of primary $p/p_{t,j}$ starts out at the level of $p_{t,s}/p_{t,j}$ shown in figure 7 for $\mathrm{NPR} = 2$ and then expands toward ambient conditions. For the lower two expansion ratios (1.52 and 1.76), the flow is still initially detached at $\mathrm{NPR} = 3$ as it leaves the primary nozzle (denoted by the fact that $p/p_{t,j}$ upstream of $x/L = 0.2$ is still influenced by changes in NPR and that $p/p_{t,j}$ has not reached a constant value (fig. 7)).

Farther downstream on the shroud, the flow attaches to the shroud until it shocks to ambient conditions near the exit. The flow is fully detached from the shroud at $\mathrm{NPR} = 3$ for the shroud with $A_e/A_t = 2.00$ because the shroud has been moved farther from the centerline in figure 5. (See configurations 1, 5, and 9.) Above $\mathrm{NPR} = 4$, all the shrouds have been essentially filled by the primary flow and the flow remains attached to the shroud, as indicated by the unchanging $p/p_{t,j}$ distributions with increasing NPR and the fact that the minimum pressure ratio $p_{t,s}/p_{t,j}$ has been reached. Because the shroud static pressures are closer to ambient conditions for the detached-flow cases ($\mathrm{NPR} = 2$ and 3) in the highest expansion ratio shroud, the thrust performance has been increased at those NPR values. (See fig. 7.) Similar results are shown in figure 8(b) for the afterburner-powered configurations.

The addition of the shroud caused a slight increase in discharge coefficient that is more apparent for the afterburner configurations, although the reason for this increase is unknown.

Effect of Secondary Flow

The effect of secondary flow on gross thrust, pumping characteristics, and discharge coefficient for the unvectored dry-powered configurations is shown in figure 9(a). The addition or rate of secondary flow had no effect on primary nozzle discharge coefficient (w_p/w_i), as expected. The addition of secondary flow significantly increased the thrust coefficients for all three ejector nozzles, but to a varying degree. The peak thrust coefficients with secondary flow occurred at lower NPR values than with no secondary flow. Adding secondary flow had the same effect as decreasing the expansion ratio (A_e/A_t), because now A_t included the primary and ejector areas and the lower expansion ratio shifted the whole curve toward a lower NPR value.

The greatest overall gross thrust improvements were obtained with midrange secondary-to-primary flow ratios. Because the largest area ratio nozzle $(A_e/A_t = 2.00)$ had the worst performance without any secondary flow, the greatest potential for gross-thrust-ratio improvement with secondary flow exists for it. In fact, it did exhibit the best improvement as shown by the data in figure 9(a). The pumping characteristics are typical (refs. 1–8) in that as secondary flow is increased, $p_{t,s}/p_{t,j}$ increases because a higher value of $p_{t,s}$ is required to maintain a given secondary-flow rate. In general, the addition of secondary flow reduced the NPR at which the mixed flow first attaches to the shroud (that is, $p_{t,s}/p_{t,j}$ becomes constant). Similar results are shown in figure 9(b) for the afterburner configurations.

To help understand the influence of secondary flow on the gross thrust coefficient, the pressure distributions are shown for the unvectored dry-powered configuration in figure 10(a). Again, these pressures are along the top centerline of the shroud. For the lowest expansion ratio configuration, the flow is fully separated from the shroud at $\mathrm{NPR} = 2$ for all corrected secondary-to-primary weight-flow ratios. Without secondary flow, the flow is initially detached at $\mathrm{NPR} = 3$; however, with the addition of a small amount of secondary flow, the flow becomes attached at $\mathrm{NPR} = 3$. At $\omega\sqrt{\tau} = 0.02$, the secondary flow has a slight acceleration as noted by the slight decrease in pressures upstream of $x/L = 0$. With a further increase in corrected secondary-to-primary weight-flow ratios, the secondary flow accelerates even more. With secondary flow, the flow near the exit shocks to ambient conditions below $\mathrm{NPR} = 5$. At $\mathrm{NPR} = 2$ and $\omega\sqrt{\tau} = 0.02$, the increase in secondary pressure causes the separated flow to be nearer ambient conditions, thus increasing the thrust level over the no-secondary-flow level. (See fig. 9(a).) With increasing secondary flow, the slightly higher pressure levels contribute to the small increase in thrust for those flows. (See fig. 9(a).) The overexpansion losses at low NPR were reduced with the addition of secondary flow. With further increases in secondary flow, the shroud pressures downstream of the primary exit are quite similar, which results in very little change in gross thrust performance at the higher NPR values. Similar results are shown for the other dry- and afterburner-powered configurations (fig. 10(b)).

Effect of Slot-Height Ratio and Thrust Vectoring

The effects of slot-height ratio (h_u/h_l) (ejector passage symmetry) and geometric vector angle (δ) on gross thrust coefficient and pumping characteristics for the dry-powered configurations with no secondary flow are shown in figure 11(a). Increasing the slot-height ratio from a value of 1.00 changes the secondary-flow passage from a symmetric to an asymmetric annular cross section. Once the primary flow is attached to the shroud wall $(\mathrm{NPR} \approx 4$ to 6), a decrease in thrust coefficient of about 1 percent generally occurs for the thrust-vectored configurations, a result indicating a small turning loss due to vectoring. However, little or no effects resulted from the slot-height ratio and, likewise, the slot-height ratio had no effect on the pumping characteristics. Similar results are shown in figure 11(b) for the afterburner configurations.

The effects of slot-height ratio and geometric vector angle on discharge coefficient and thrust vector angle are shown in figure 12(a) for the dry-powered configurations with no secondary flow. Thrust vectoring causes a reduction of about 2.5 percent in the primary nozzle discharge coefficient. Because geometric throat geometry varies with geometric thrust vector angle, a variation in w_p/w_i with varying δ was expected. A similar reduction in discharge coefficient was reported in reference 11 for a single flow (nonejector) convergent-divergent nozzle thrust that was vectored $20°$. Discharge coefficient was independent of variations in the spacing ratio. The geometric vector angle of $18°$ produced at least $18°$ of thrust vector angle except in the lower NPR region. At the highest two expansion ratios tested, a slight reduction occurs in resultant thrust vector angle with increasing h_u/h_l. Because the turning of the flow occurs in the subsonic region of the primary nozzles upstream of the throat, very little loss in vectoring should occur $(\delta_p \approx \delta)$. These results are typical for vectoring axisymmetric nozzles (ref. 11), and similar results are shown in figure 12(b) for the afterburner configurations.

To help understand why very little change occurs in thrust vector angle with an increase in slot-height ratio, the shroud static pressures for the dry power configurations with various slot-height ratios are shown in figure 13(a) for the shroud top centerline (even though tabulated pressures for the bottom and side centerlines are presented in the appendix). For the ejector nozzle with the lowest expansion ratio, the pressure distributions on the shrouds are nearly identical with increasing slot-height ratio and thus produce essentially the same resultant thrust vector angles. (See fig. 12(a).) With increasing expansion ratio, the pressure distributions at various slot-height ratios are different and contribute to the changes noted in resultant thrust vector angles for those configurations. Similar results are shown in figure 13(b) for the afterburner configurations.

The effects of secondary flow on the gross thrust coefficient and pumping characteristics of the vectored dry-powered configurations with a slot-height ratio (h_u/h_l) of 1.00 are shown in figure 14(a). As with the unvectored configurations (see fig. 9), the addition of secondary flow causes an increase in thrust coefficient, with the largest improvements occurring in the lower NPR range and for the highest expansion ratio ejector nozzle. Again, the mid-to-high range of secondary flow produced the best overall improvement in thrust over the NPR range tested. The pumping characteristics are as expected. Secondary flow generally reduces the value of NPR where the mixed flow first attaches to the shroud. Similar results are shown in figure 14(b) for the afterburner configurations.

The effects of secondary flow on discharge coefficient and thrust vector angle are shown in figure 15(a) for the configurations of figure 14(a). Secondary flow had no effect on primary discharge coefficient. The geometric vector angle of 18° produced essentially 18° of thrust vectoring, again with most of the variation occurring in the lower NPR range. Increasing the amount of secondary flow reduces the thrust vector angle, with most of the variation occurring at the higher expansion ratios. Similar results are shown in figure 15(b) for the afterburner configurations.

The effects of secondary flow on the shroud static pressure distributions for the configurations in figures 14 and 15 are presented in figure 16. Again, these pressures can be related to the changes in thrust vector angles for these configurations.

Secondary-Flow Cooling Potential

Figures 17 and 18 show the potential nozzle cooling capability of the secondary air. Figure 17 presents data for the unvectored ejector nozzles. Pressure ratios $(p/p_{t,s})$ above 1.00 indicate that the primary flow is impinging on the shroud. With no secondary flow, the shroud pressures were influenced by the primary flow. The values of $p/p_{t,s}$ are generally greater than 1.00 downstream of the primary nozzle exit $(x/L = 0)$. With a slight increase in secondary flow, the pressure ratio levels were generally reduced to values equal to or less than 1.00, a result indicating that secondary flow effectively cooled the nozzle shroud. Figure 18 shows values of $p/p_{t,s}$ for the top centerline of the shroud for vectored configurations with secondary flow. For no secondary flow, the pressure ratios are quite high, especially at high values of NPR. A small amount of secondary flow is no longer effective ($p/p_{t,s}$ values greater than 1.00) for shroud cooling, but with increasing secondary flow the pressure ratios are reduced to levels near 1.00.

Effect of Primary Nozzle Expansion Ratio

The effect of primary nozzle expansion ratio and ejector secondary flow on the performance and pumping characteristics of the unvectored configurations is shown in figure 19. Increasing the primary nozzle expansion ratio increases the NPR at which peak gross thrust performance occurs. The addition of secondary flow increases the performance of the shrouded configurations. The increased expansion ratio of the primary nozzle allowed ambient conditions to propagate through the boundary layer and increase the performance of the isolated (shroud off) primary nozzles at low values of NPR. The effect of primary expansion ratio on the shroud static pressure distributions is presented in figure 20.

Conclusions

A series of thrust-vectored axisymmetric ejector nozzles were designed and experimentally tested for internal performance and pumping characteristics at the Langley Research Center. These ejector nozzles used convergent-divergent nozzles as the primary nozzles. The model geometric variables investigated were the primary nozzle throat area, the primary nozzle expansion ratio, the effective ejector expansion ratio (the ratio of shroud exit area to primary nozzle throat area), the ratio of minimum ejector area to primary nozzle throat area, the ratio of ejector upper slot height to lower slot height (measured on the vertical centerline), and the thrust vector angle. The primary nozzle pressure ratio was varied from 2.0 to 10.0, depending on the primary nozzle throat area. The corrected ejector-to-primary nozzle weight-flow ratio was varied from 0 (no secondary flow) to approximately 0.21 (21 percent of primary weight-flow rate), depending on the ejector nozzle configuration. In addition to the internal performance and pumping characteristics, static pressures were obtained on the shroud walls. The following conclusions are presented:

1. Without secondary flow, the addition of shrouds reduced the gross thrust ratio of the primary nozzles. The shrouded nozzles acted as convergent-divergent nozzles with expansion ratios equivalent to the ratio of the shroud exit to the primary nozzle throat.

2. Discontinuities in the thrust ratio trends occurred at low primary nozzle pressure ratios, and these discontinuities were mitigated by decreasing area ratio.

3. The addition of secondary flow increased the thrust ratio over the primary nozzle pressure ratio range. The mid-to-high range of secondary flow provided the most overall improvement, and the greatest improvements were seen for the largest ejector area ratio.

4. Thrust vectoring the ejector nozzles caused a reduction in thrust coefficient and discharge coefficient. With or without secondary flow, the vectored ejector nozzles produced thrust vector angles that were equivalent to or greater than the geometric turning angle.

5. With or without secondary flow, ejector passage symmetry had little effect on thrust ratio, discharge coefficient, or thrust vector angle.

6. For the unvectored ejectors, a small amount of secondary flow was sufficient to reduce the pressure levels on the shroud, thus indicating that secondary flow can effectively cool the nozzle shroud.

7. For the vectored ejector nozzles, a larger amount of secondary air was required to provide cooling.

NASA Langley Research Center
Hampton, VA 23681-0001
November 29, 1994

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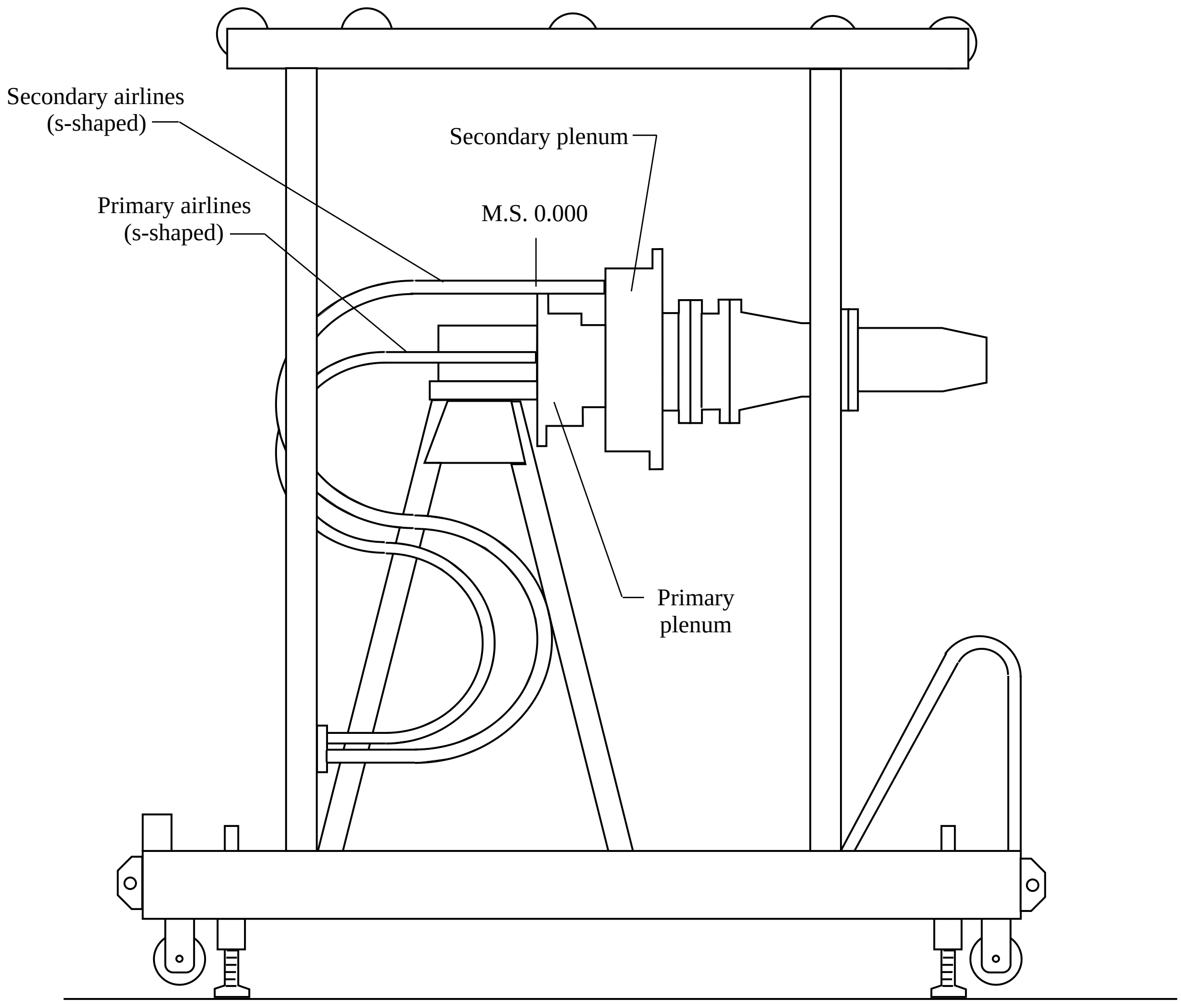
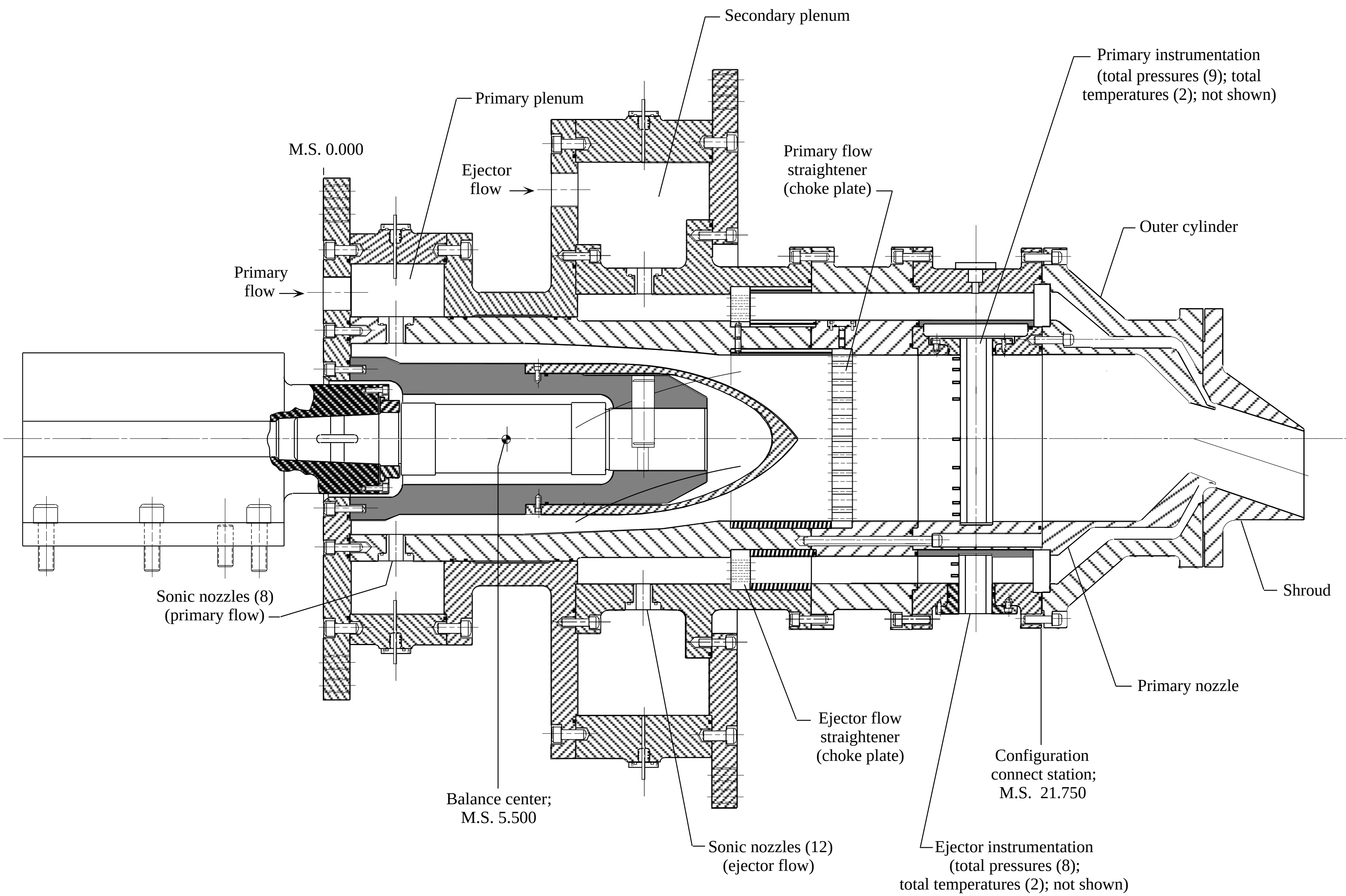
11. Carson, George T., Jr.; and Capone, Francis J.: *Static Internal Performance of an Axisymmetric Nozzle With Multiaxis Thrust-Vectoring Capability*. NASA TM-4237, 1991.

12. Mercer, Charles E.; Berrier, Bobby L.; Capone, Francis J.; and Grayson, Alan M.: *Data Reduction Formulas for the 16-Foot Transonic Tunnel: NASA Langley Research Center—Revision 2*. NASA TM-107646, 1992.



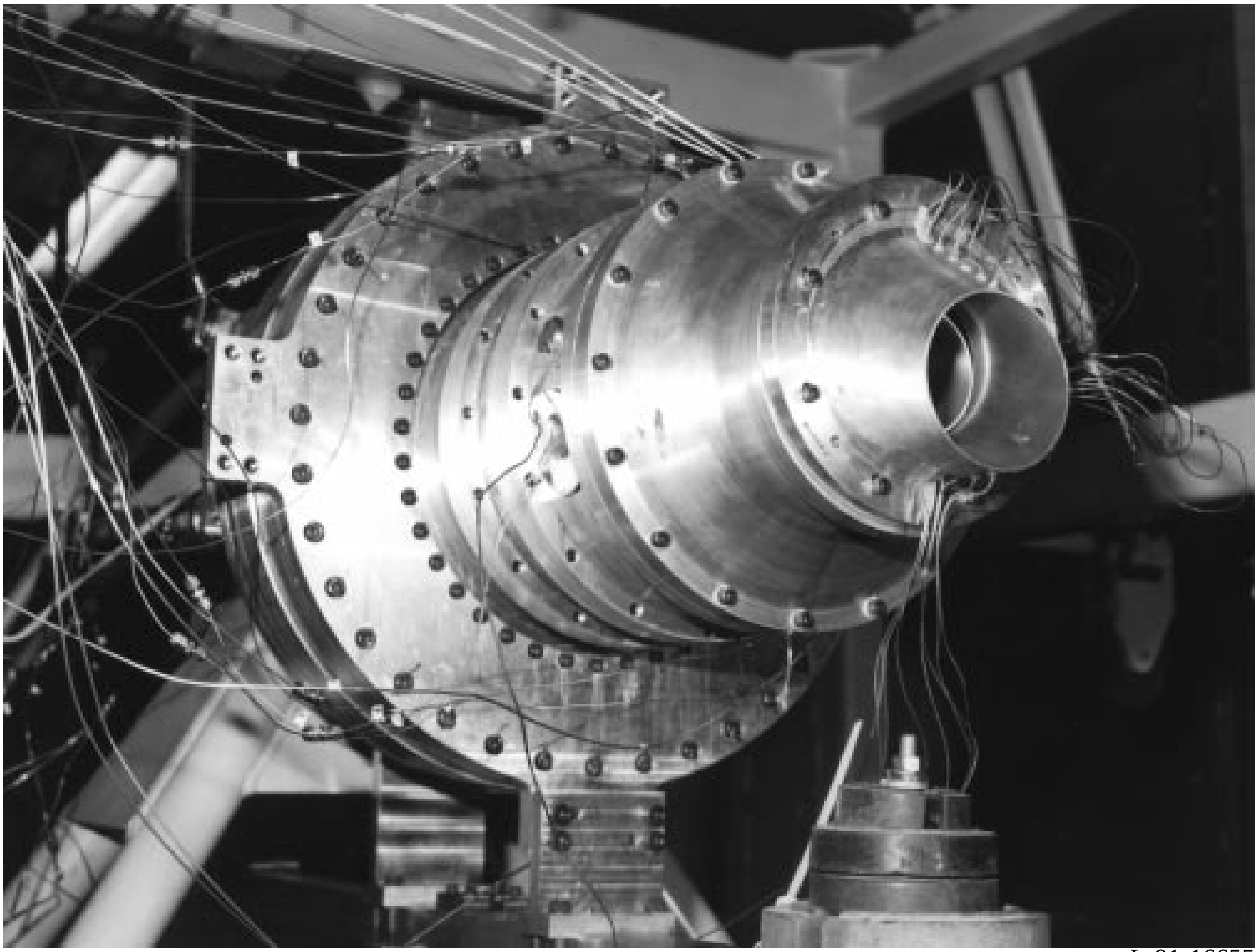
(a) Sketch of dual-flow test stand.

Figure 1. Test stand of dual-flow air-powered nacelle model. Dimensions are given in inches.



(b) Details of dual-flow system.

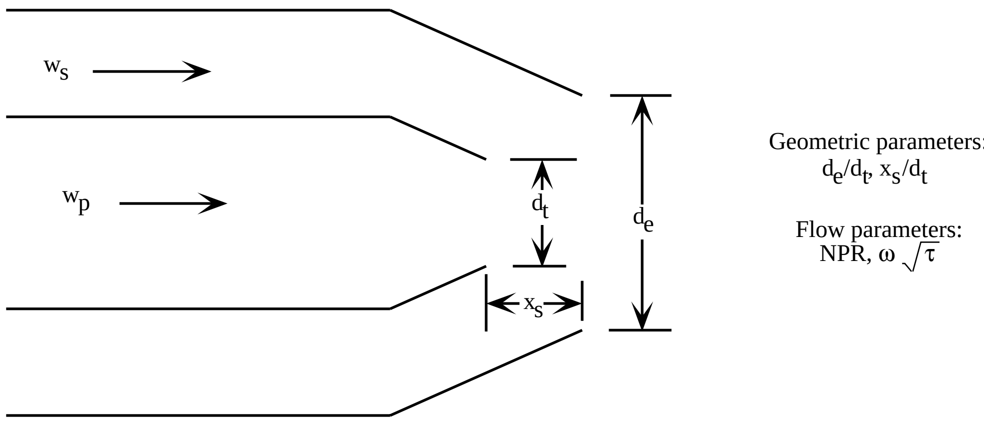
Figure 1. Continued.



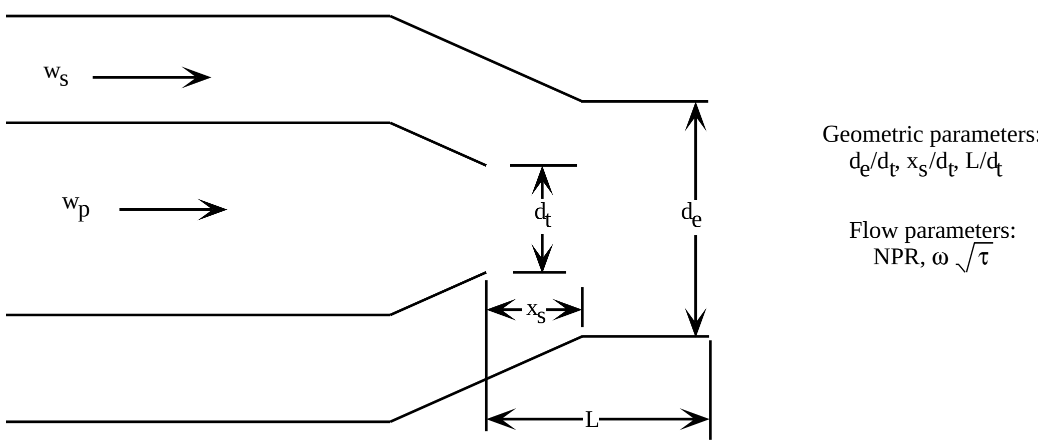
L-91-16655

(c) Photograph of ejector 20 installed on dual-flow stand.

Figure 1. Concluded.

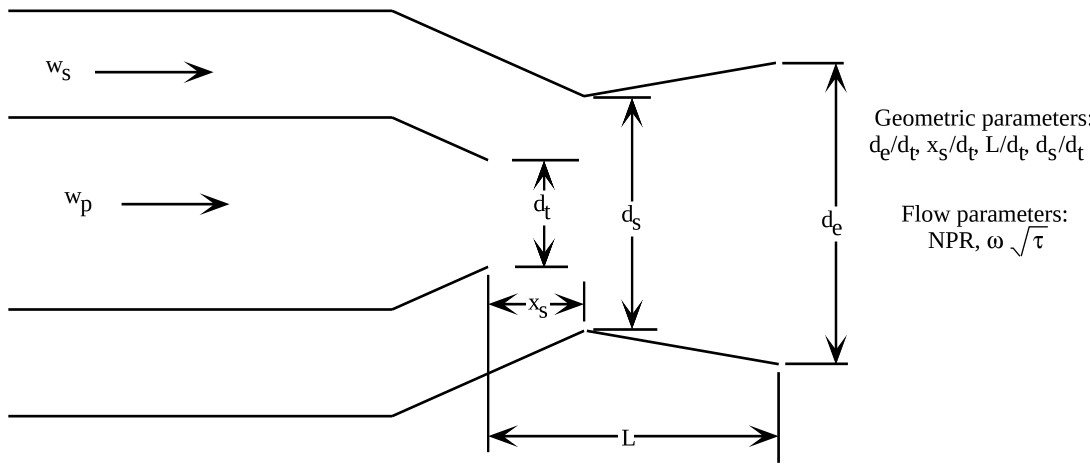


(a) Conical.

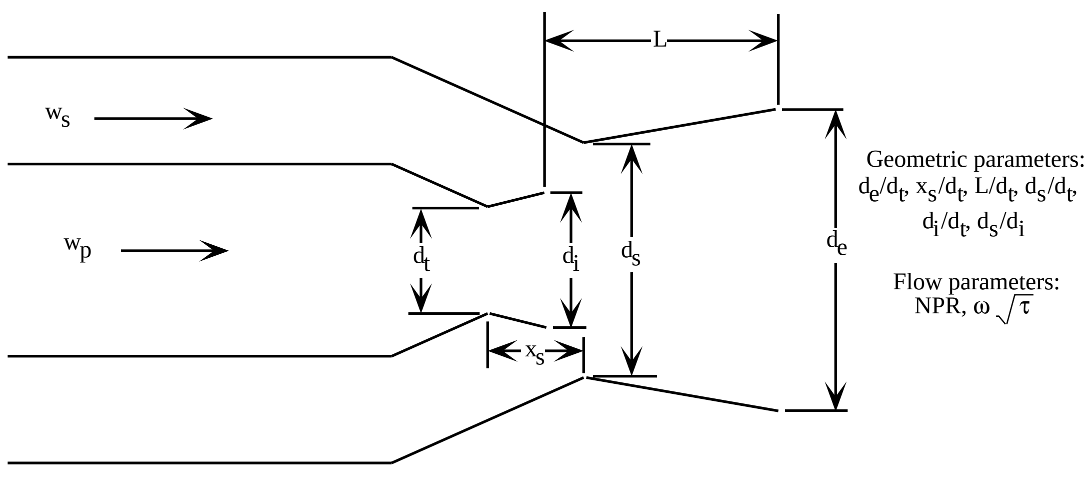


(b) Cylindrical.

Figure 2. Ejector parameters.

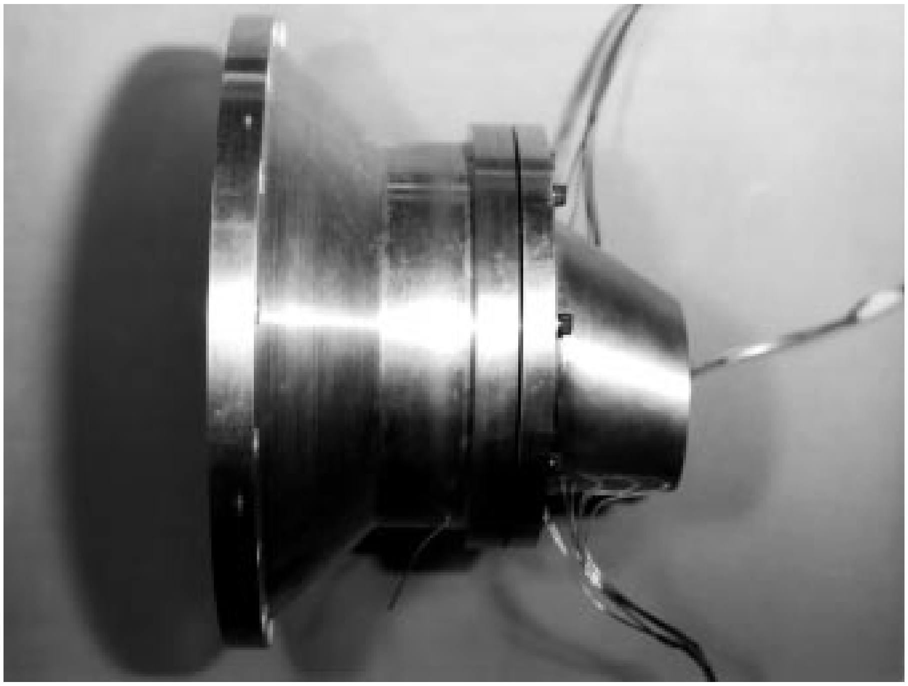


(c) Convergent-divergent (with convergent primary nozzle).



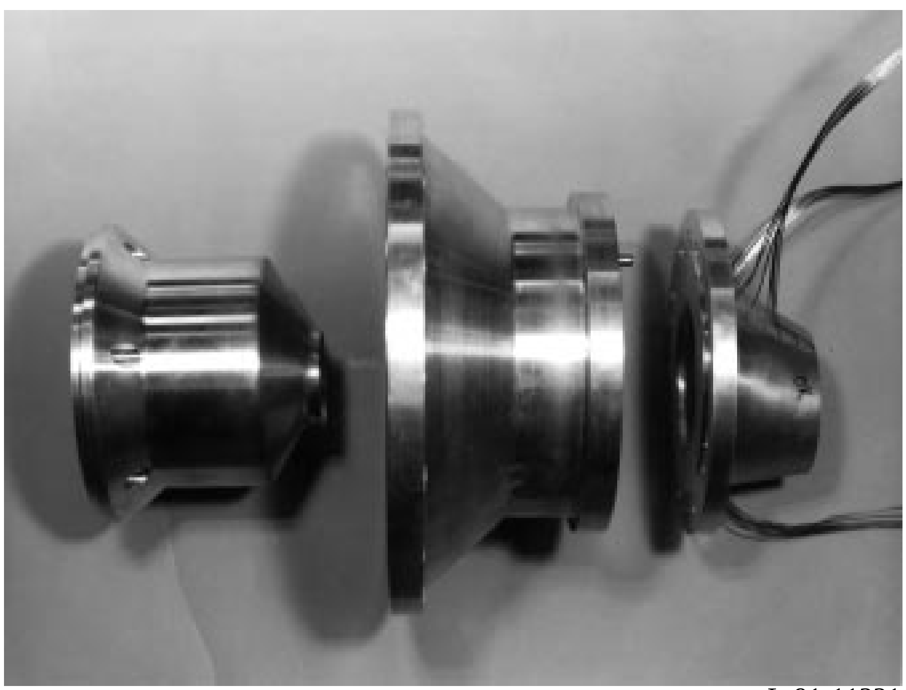
(d) Convergent-divergent (with convergent-divergent primary nozzle).

Figure 2. Concluded.



L-91-11220

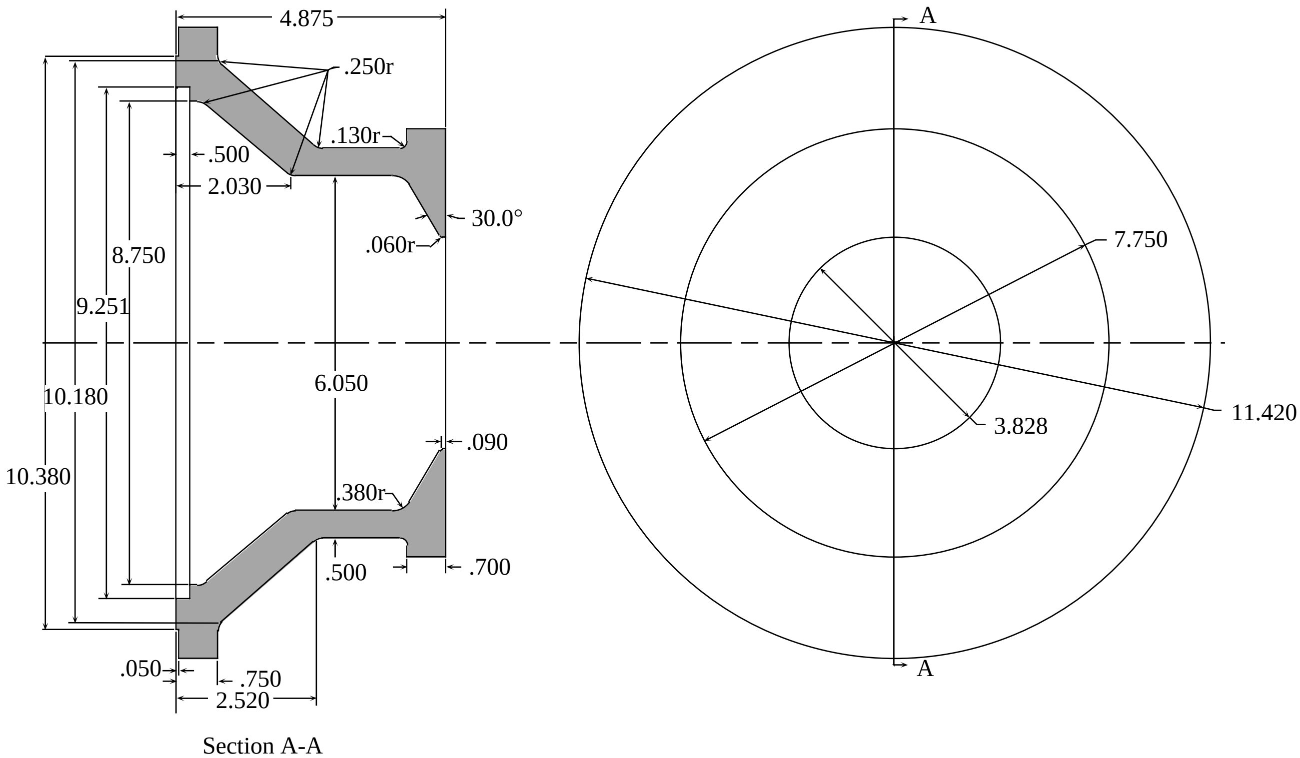
(a) Assembled configuration.



L-91-11221

(b) Disassembled configuration.

Figure 3. Photograph of one of vectored ejector nozzle configurations.

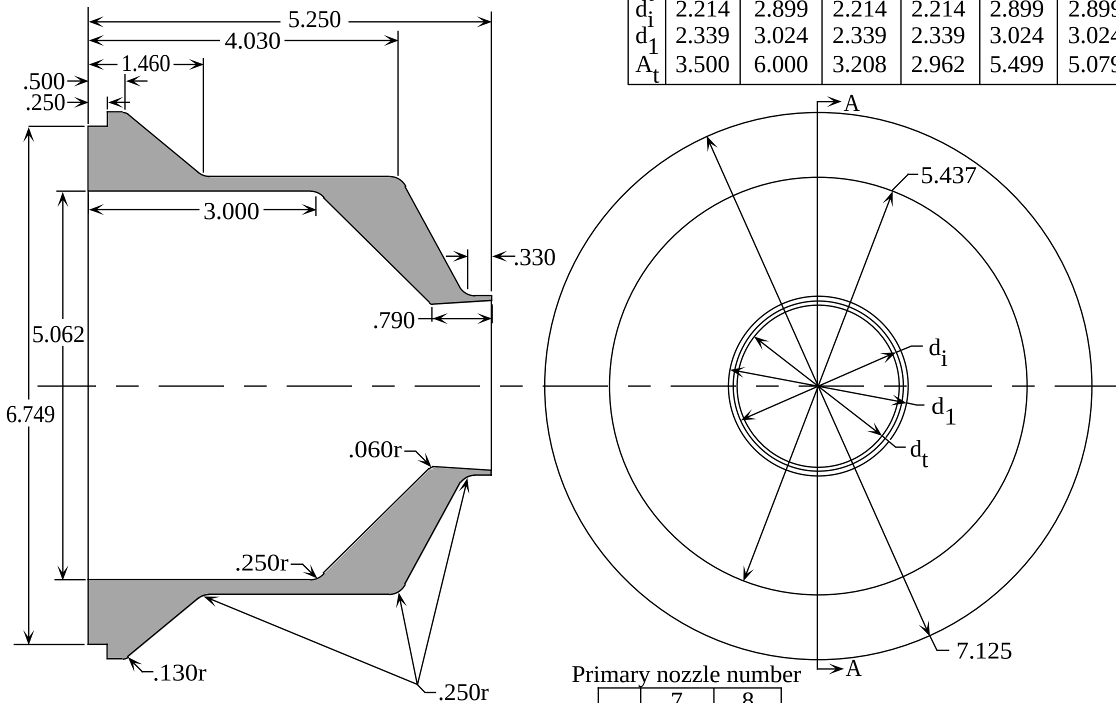


(a) Details of outer cylinder.

Figure 4. Details of ejector nozzle parts. All linear dimensions are given in inches.

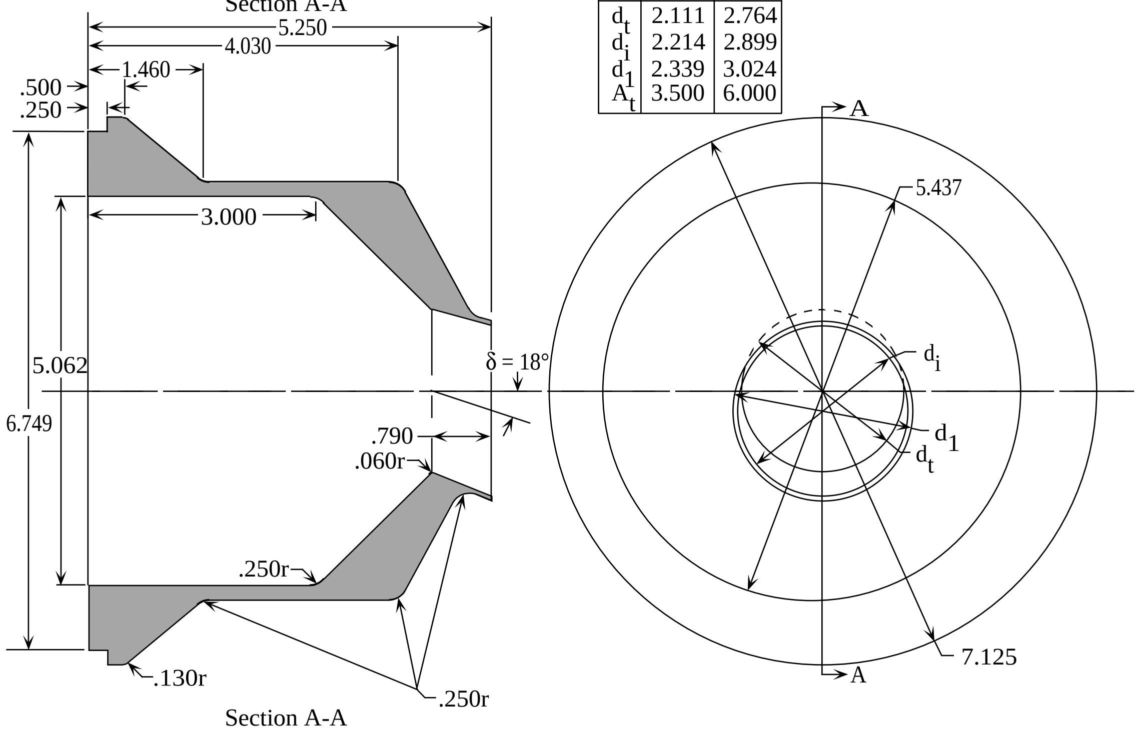
Primary nozzle number

	1	2	3	4	5	6
d_t	2.111	2.764	2.021	1.942	2.646	2.543
d_i	2.214	2.899	2.214	2.214	2.899	2.899
d_1	2.339	3.024	2.339	2.339	3.024	3.024
A_t	3.500	6.000	3.208	2.962	5.499	5.079



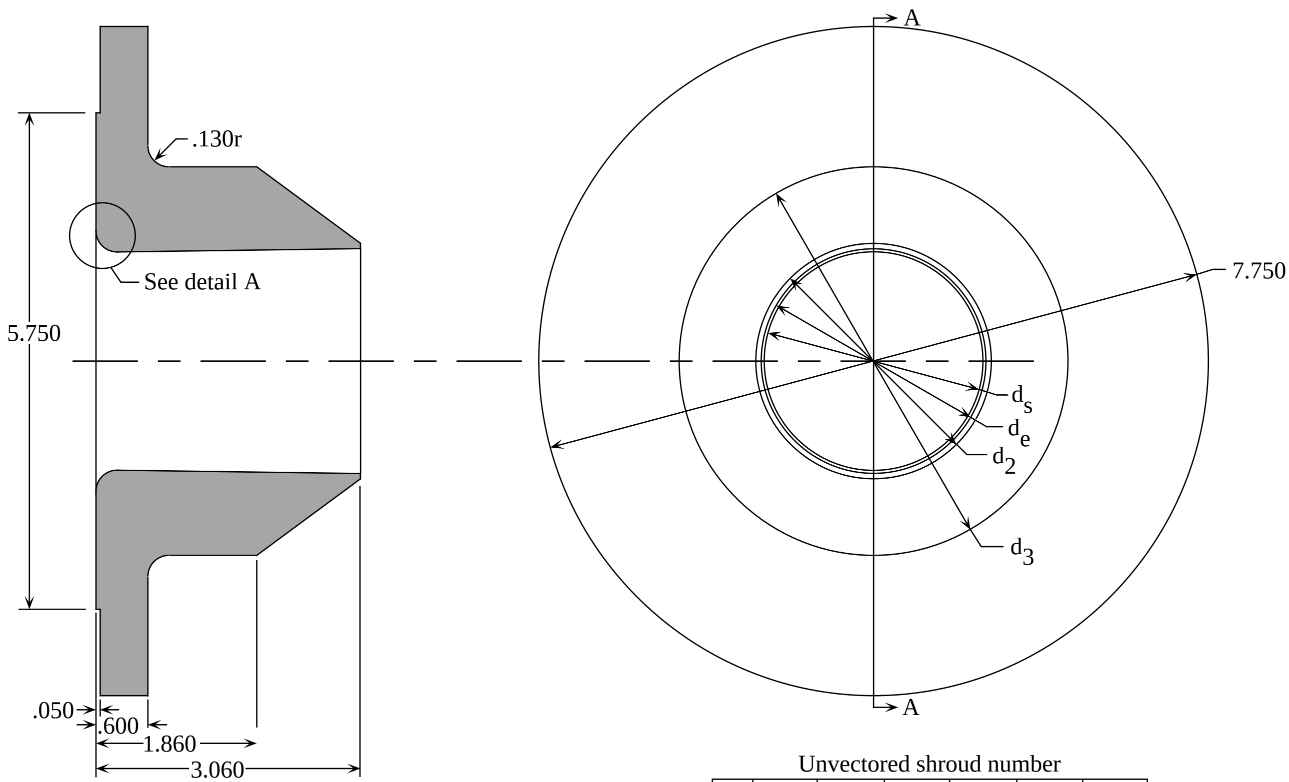
Primary nozzle number

	7	8
d_t	2.111	2.764
d_i	2.214	2.899
d_1	2.339	3.024
A_t	3.500	6.000



(b) Details of primary nozzles.

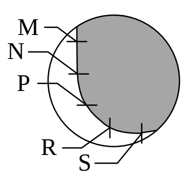
Figure 4. Continued.



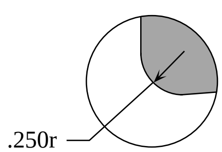
Section A-A

Unvectored shroud number

	1	2	3	4	5	6
d_s	2.531	2.709	2.873	3.168	3.312	3.449
d_e	2.601	2.801	2.987	3.405	3.667	3.911
d_2	2.726	2.926	3.112	3.530	3.792	4.036
d_3	4.500	4.500	4.500	5.250	5.250	5.250



Detail A for shrouds 1, 2, 3



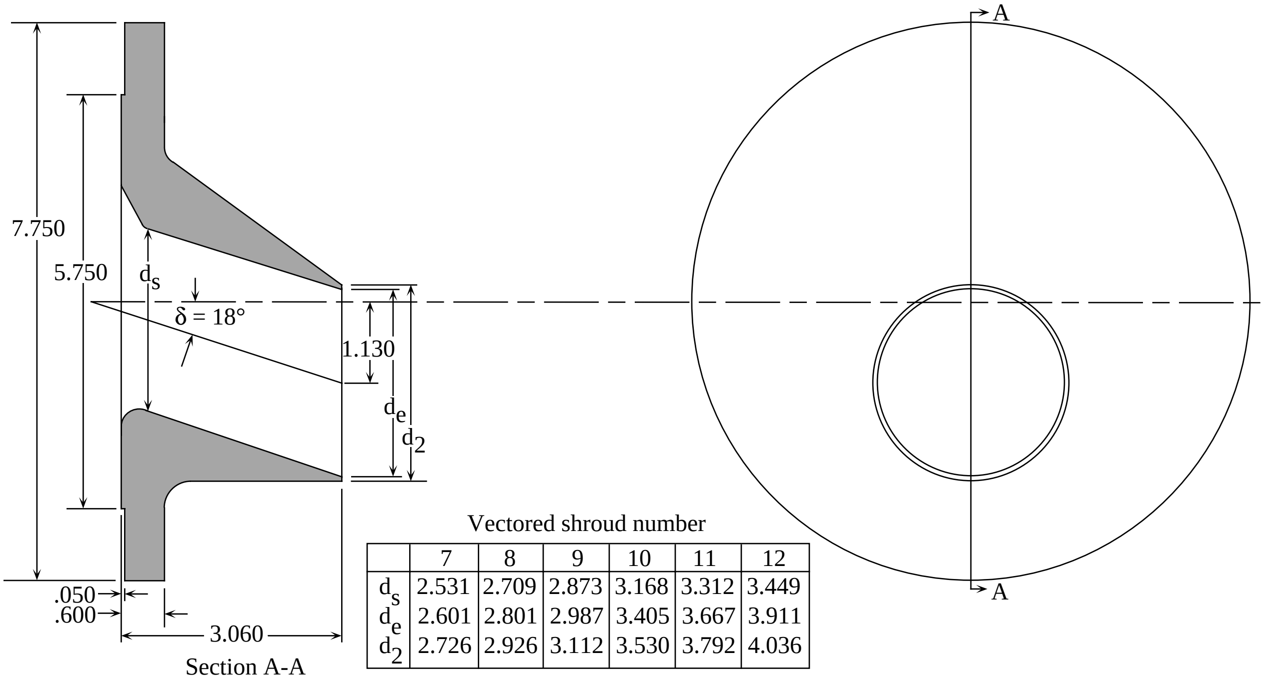
Detail A for shrouds 4, 5, 6

Shroud number

Point		1	2	3
M	x	0.000	0.000	0.000
	y	1.796	1.886	1.968
N	x	0.010	0.010	0.010
	y	1.608	1.698	1.780
P	x	0.059	0.059	0.059
	y	1.427	1.517	1.599
R	x	0.191	0.191	0.191
	y	1.298	1.388	1.470
S	x	0.375	0.375	0.375
	y	1.266	1.355	1.437

(c) Details of unvectored shrouds.

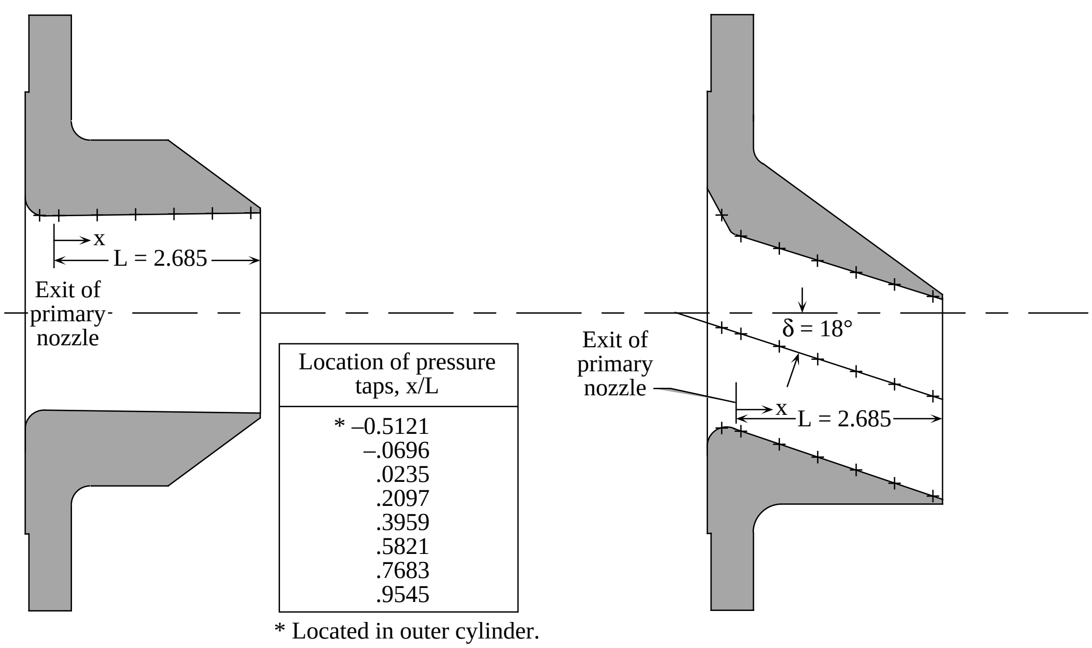
Figure 4. Continued.



Vectored shroud number

	7	8	9	10	11	12
d_s	2.531	2.709	2.873	3.168	3.312	3.449
d_e	2.601	2.801	2.987	3.405	3.667	3.911
d_2	2.726	2.926	3.112	3.530	3.792	4.036

(d) Details of vectored shrouds.

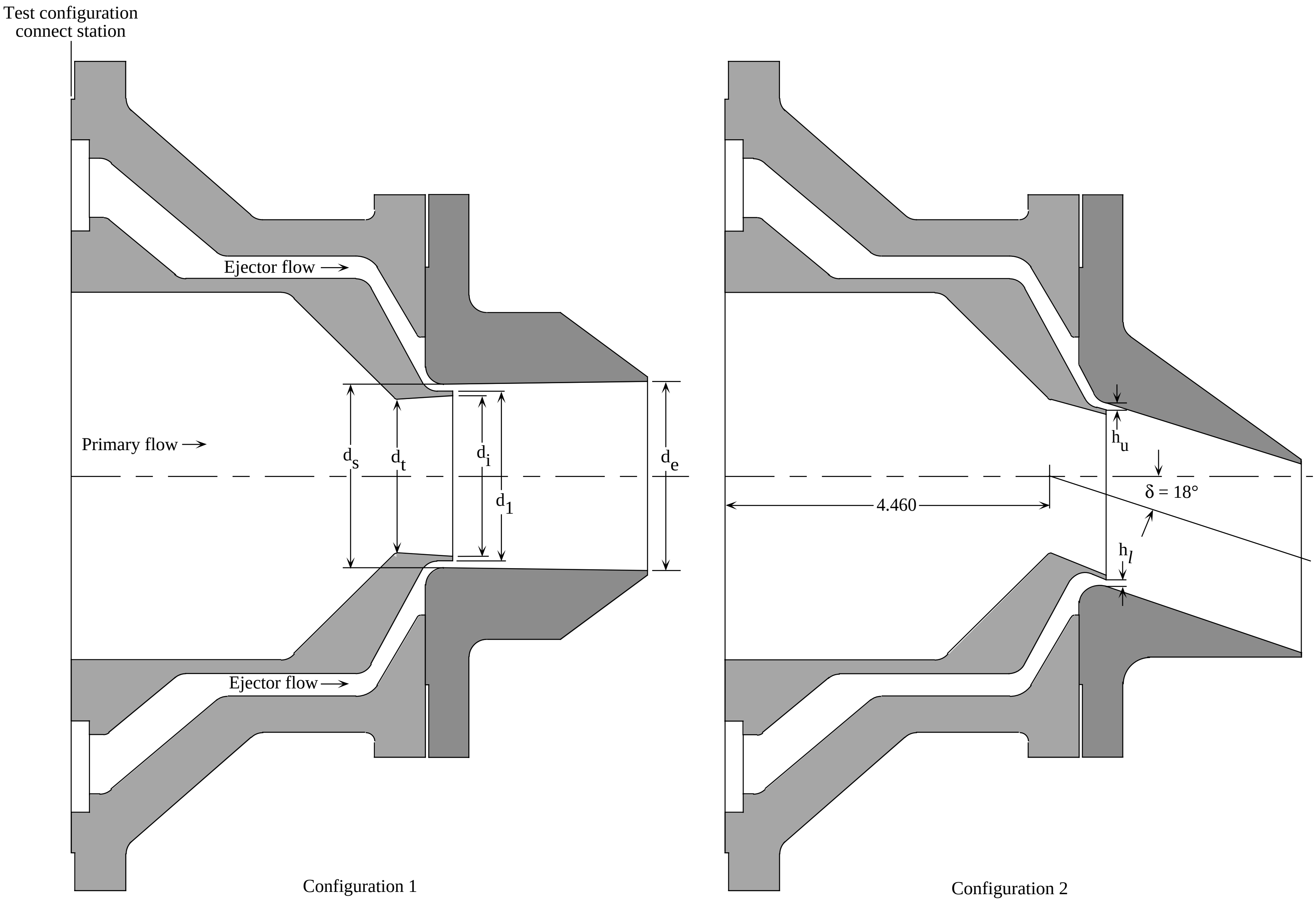


Location of pressure taps, x/L
* –0.5121
–.0696
.0235
.2097
.3959
.5821
.7683
.9545

* Located in outer cylinder.

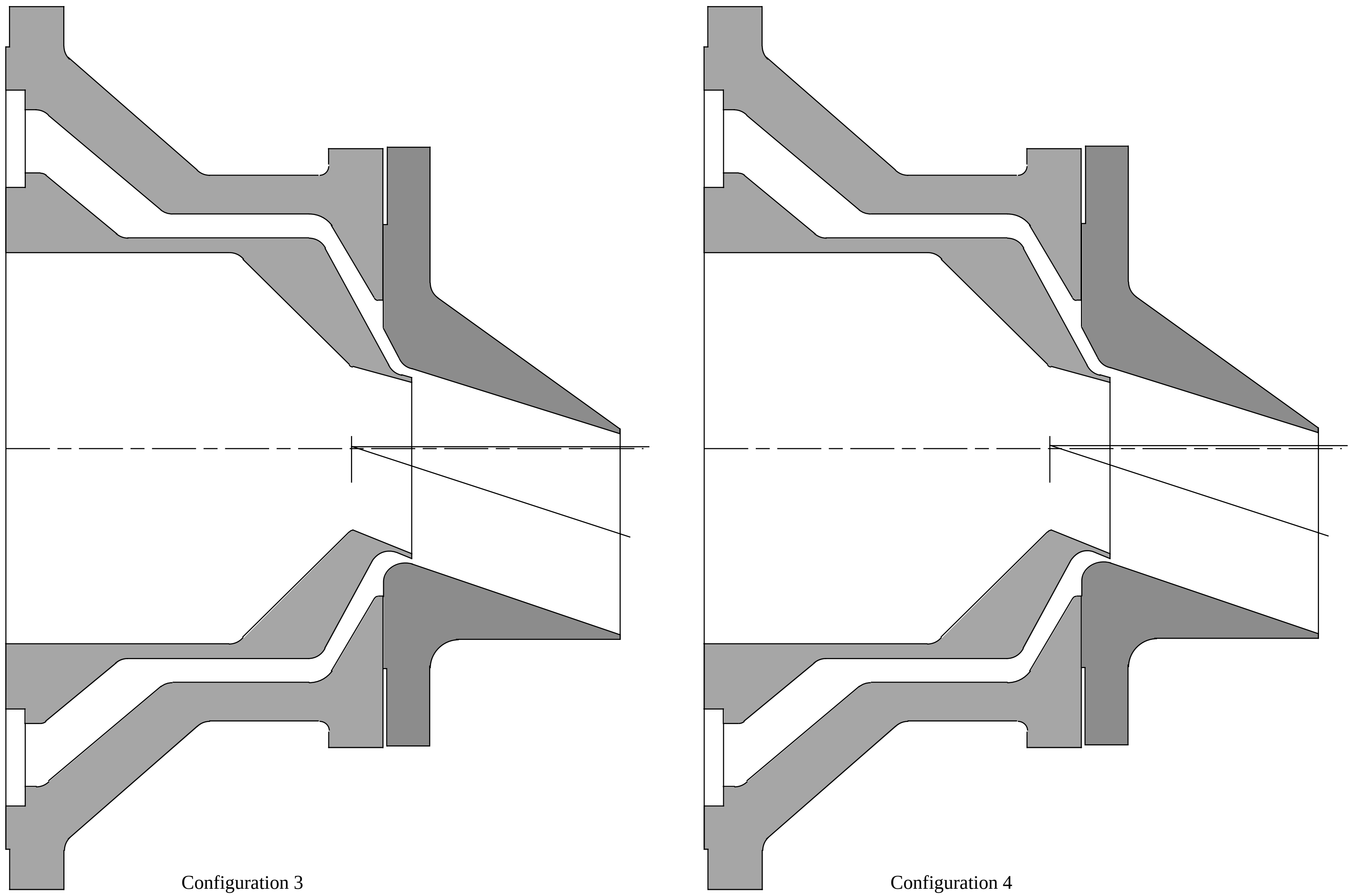
(e) Details of pressure tap locations.

Figure 4. Concluded.



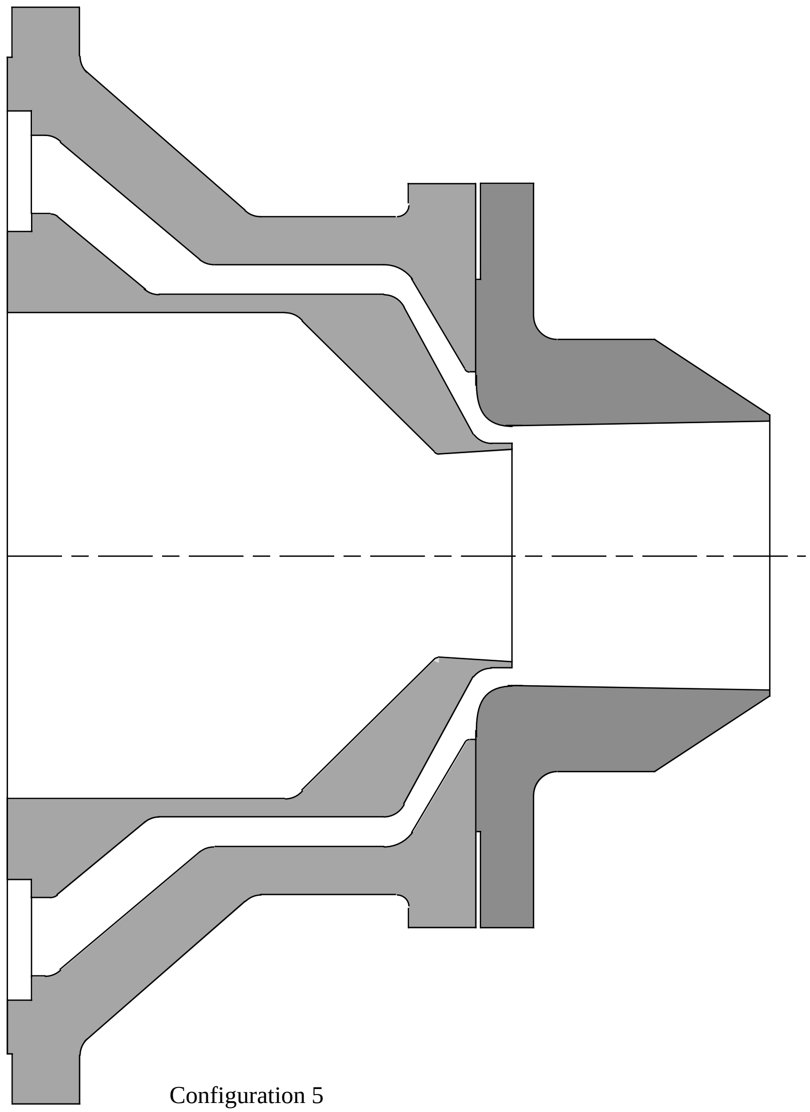
(a) Configurations 1 and 2.

Figure 5. Vertical sectional views of all 28 configurations.

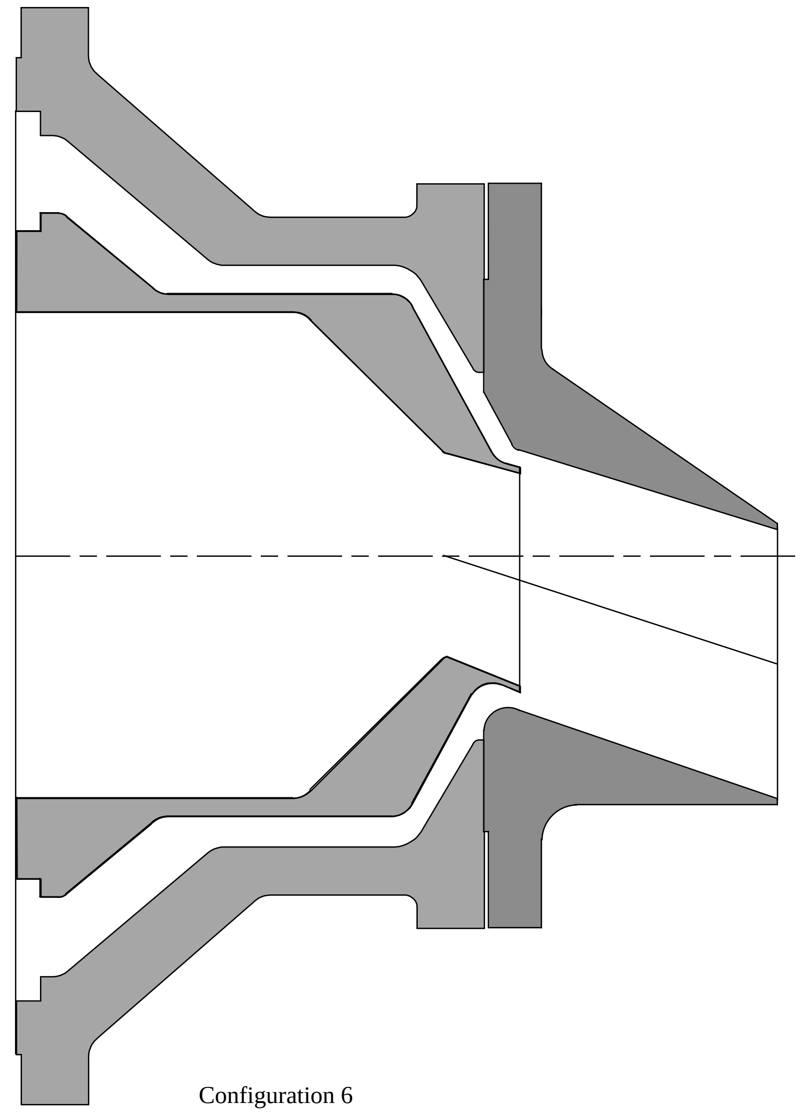


(b) Configurations 3 and 4.

Figure 5. Continued.



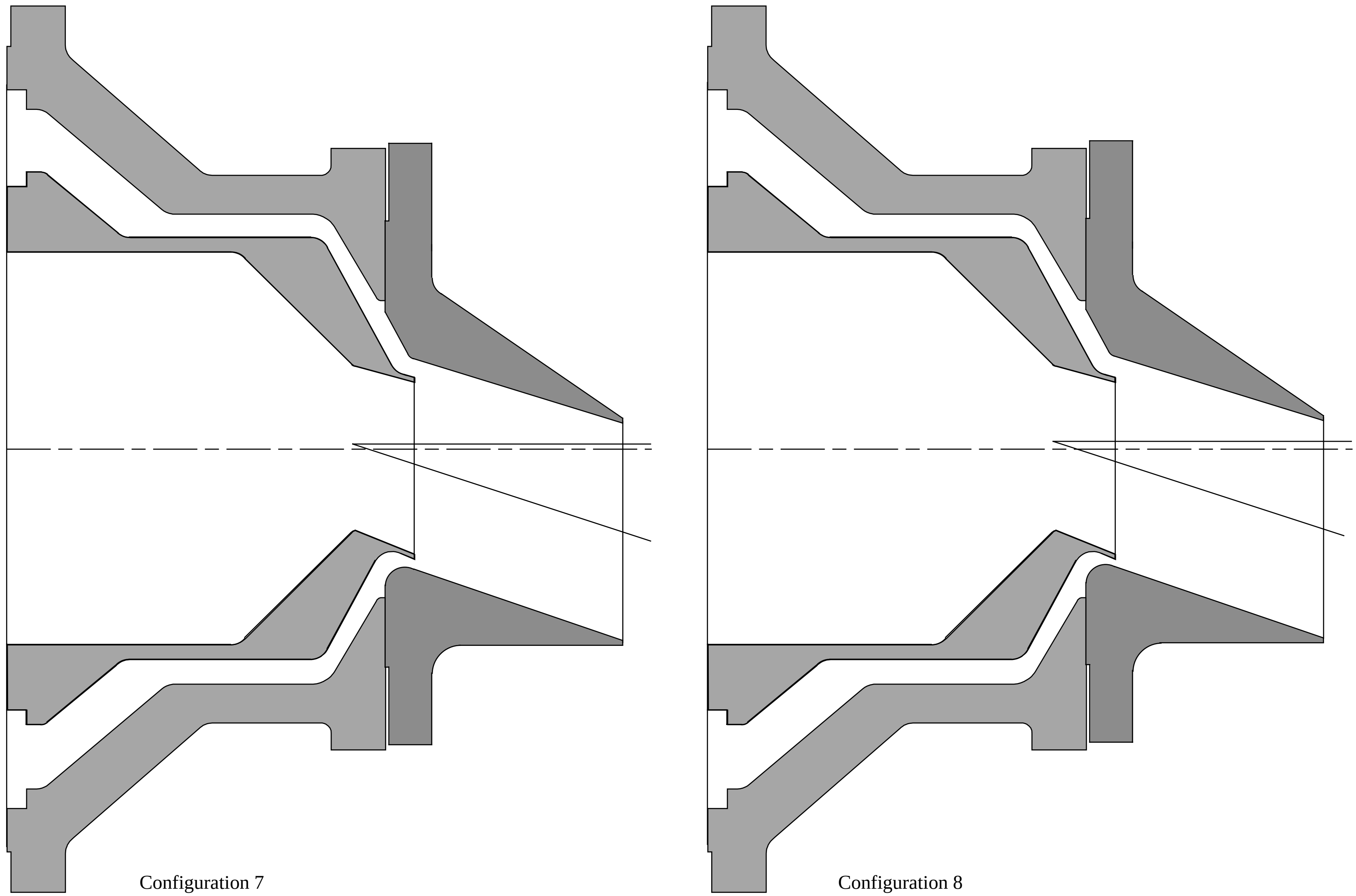
Configuration 5



Configuration 6

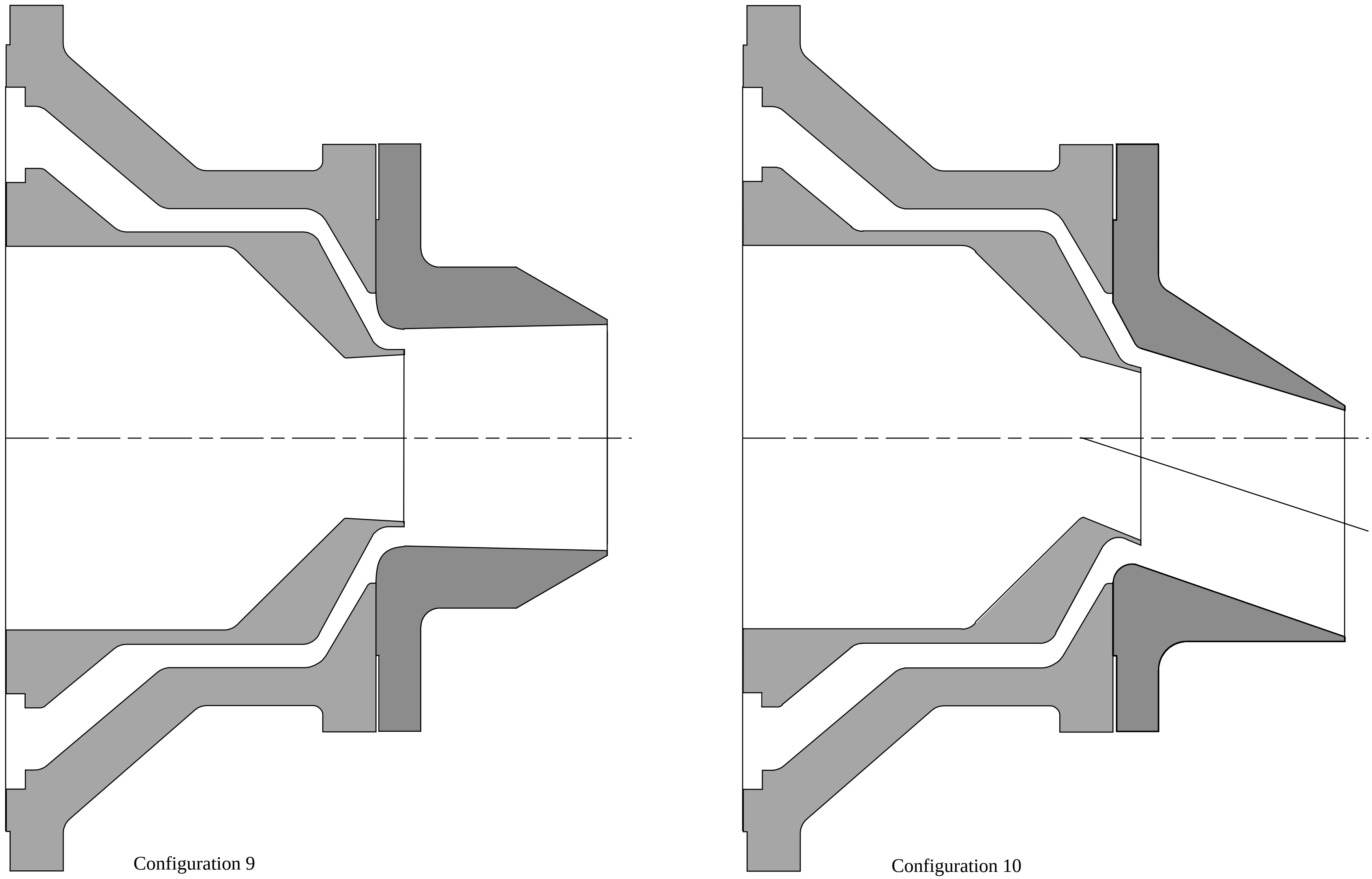
(c) Configurations 5 and 6.

Figure 5. Continued.



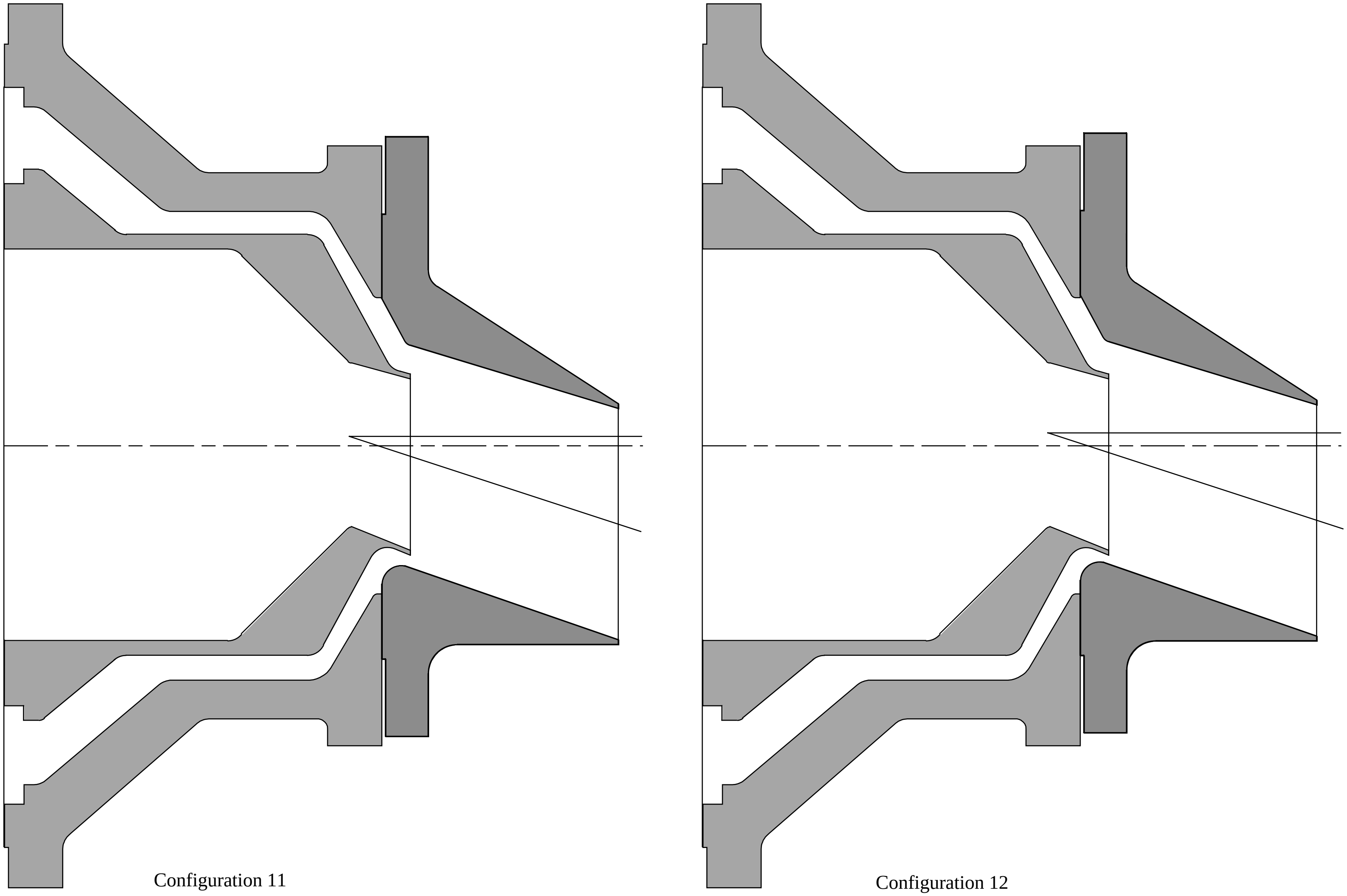
(d) Configurations 7 and 8.

Figure 5. Continued.



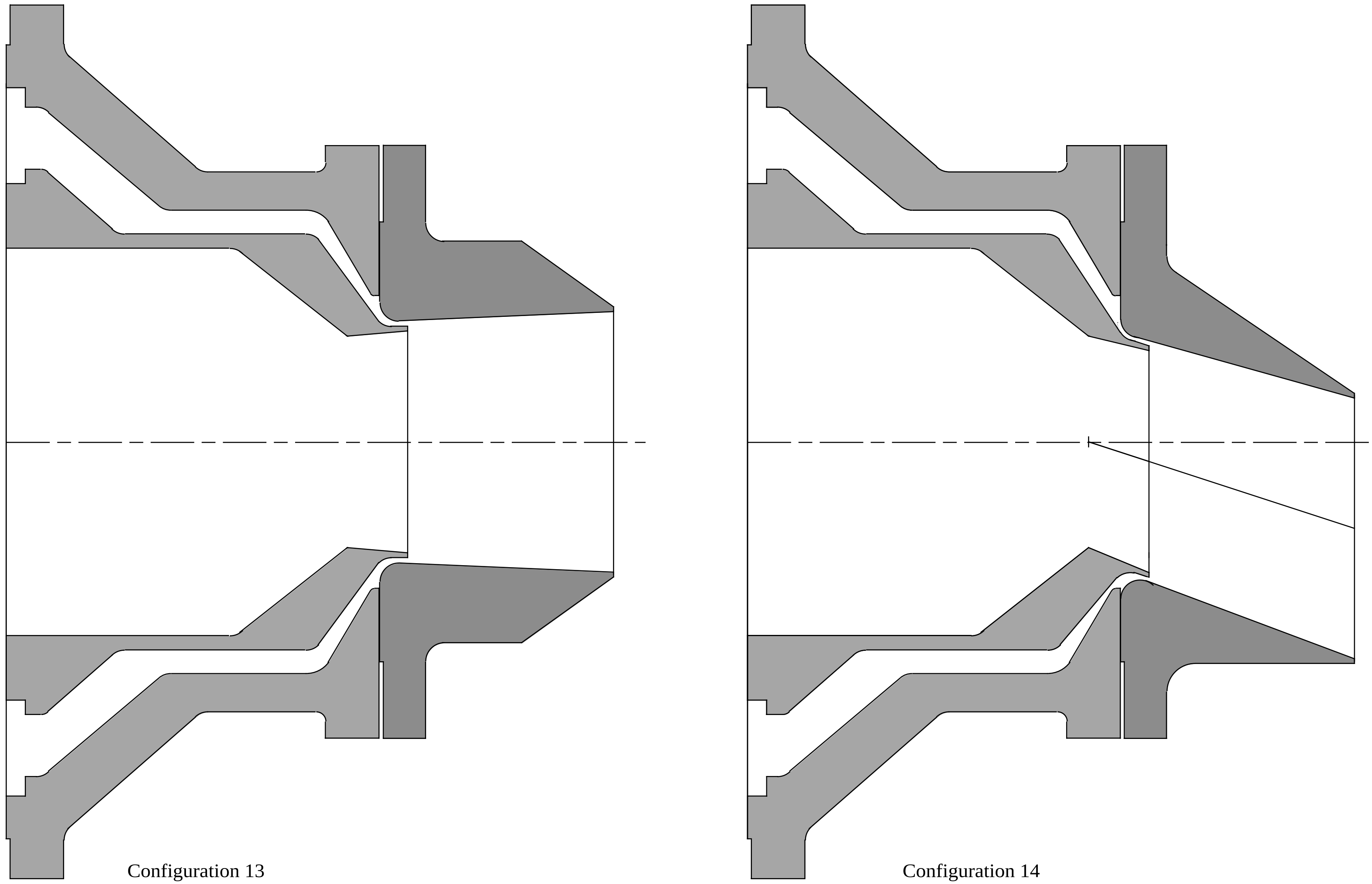
(e) Configurations 9 and 10.

Figure 5. Continued.



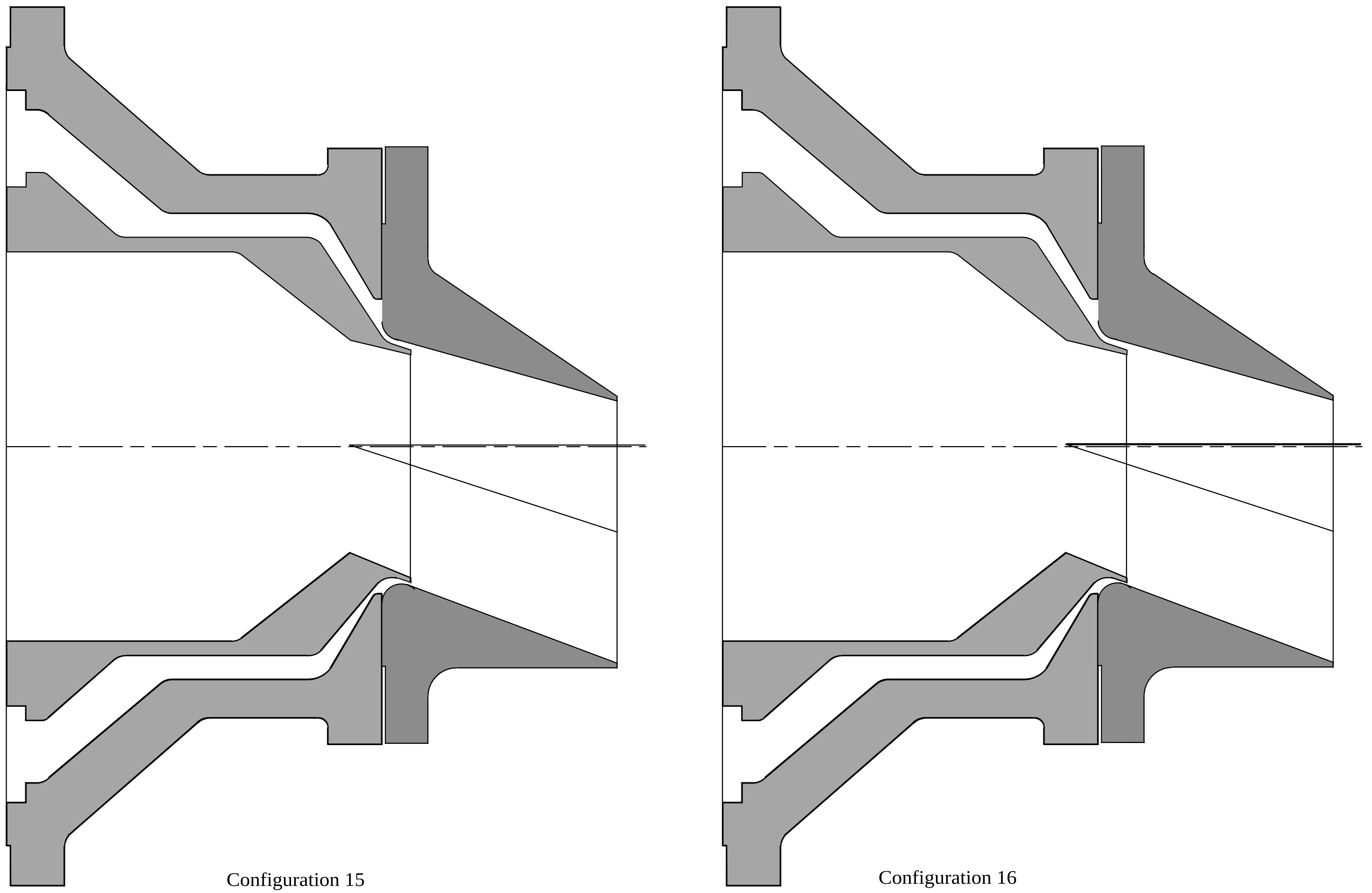
(f) Configurations 11 and 12.

Figure 5. Continued.



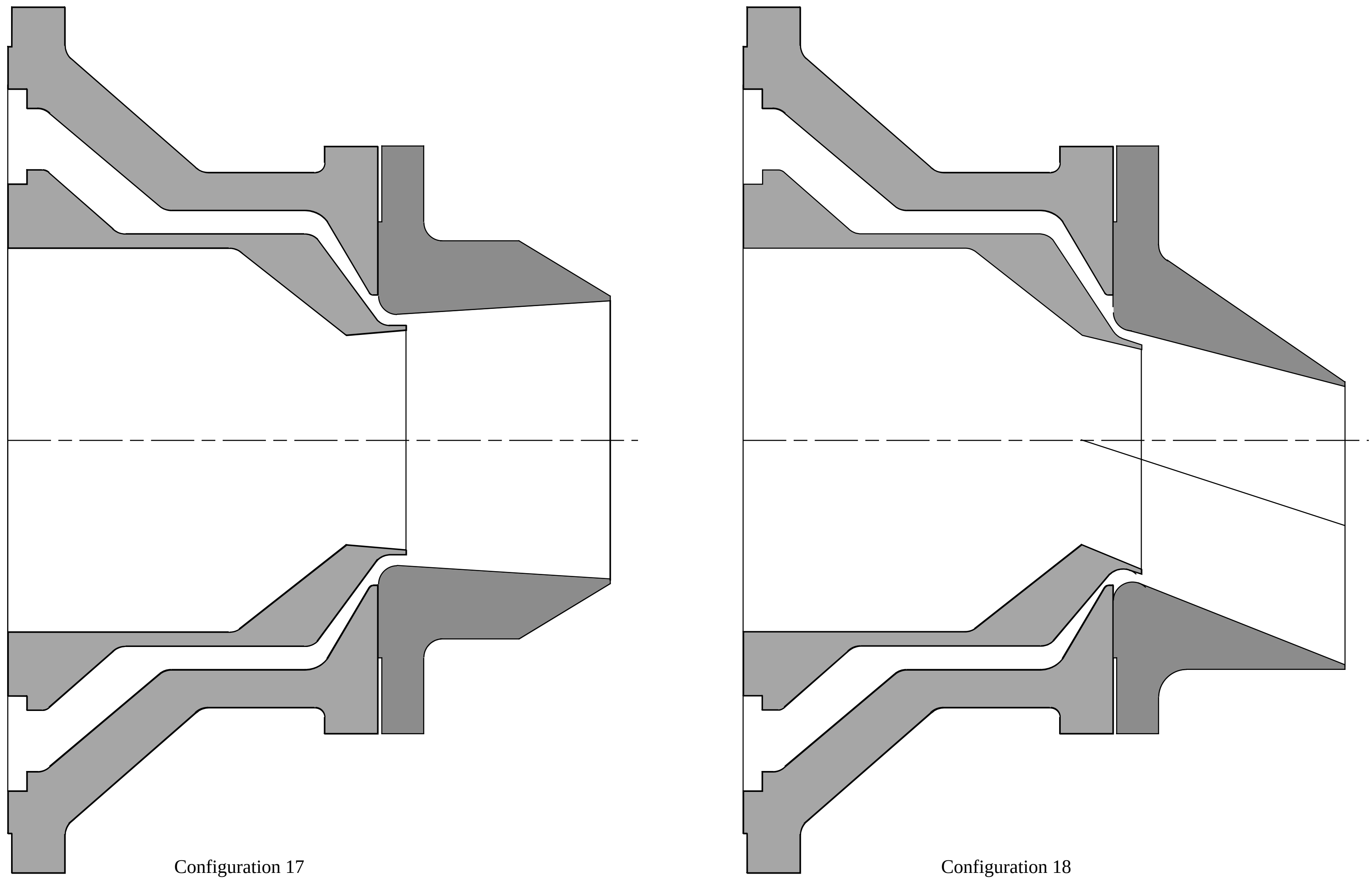
(g) Configurations 13 and 14.

Figure 5. Continued.



(h) Configurations 15 and 16.

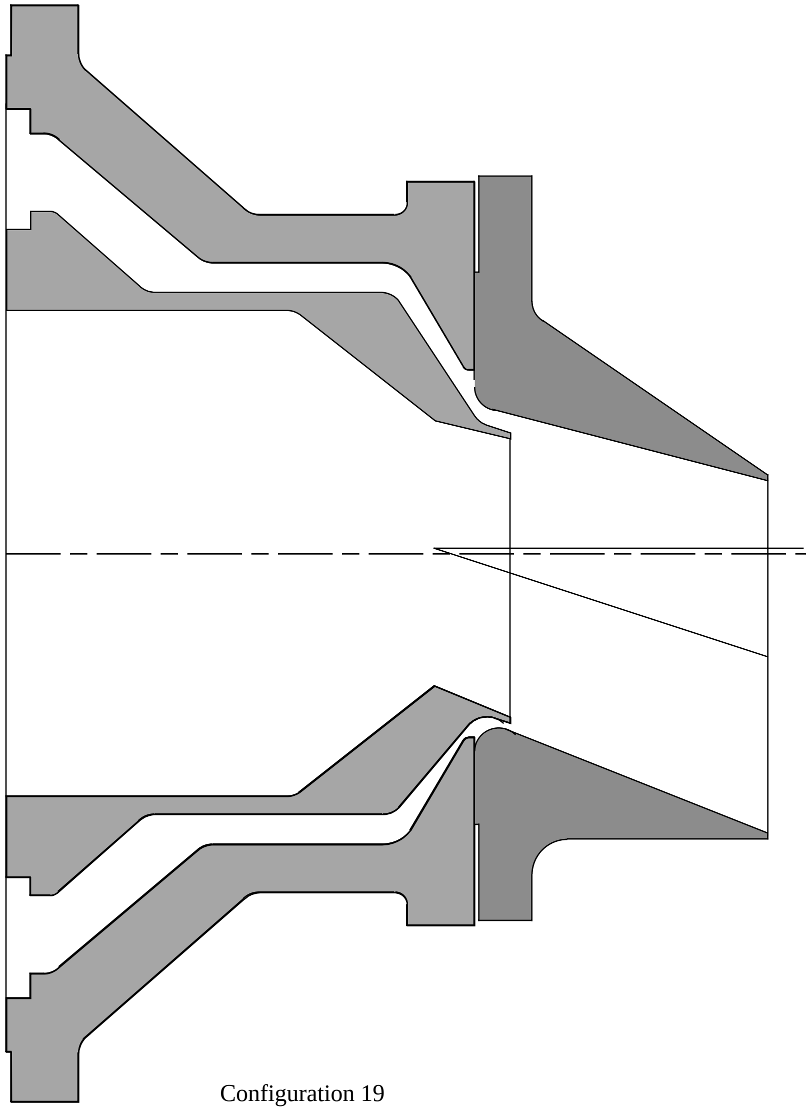
Figure 5. Continued.



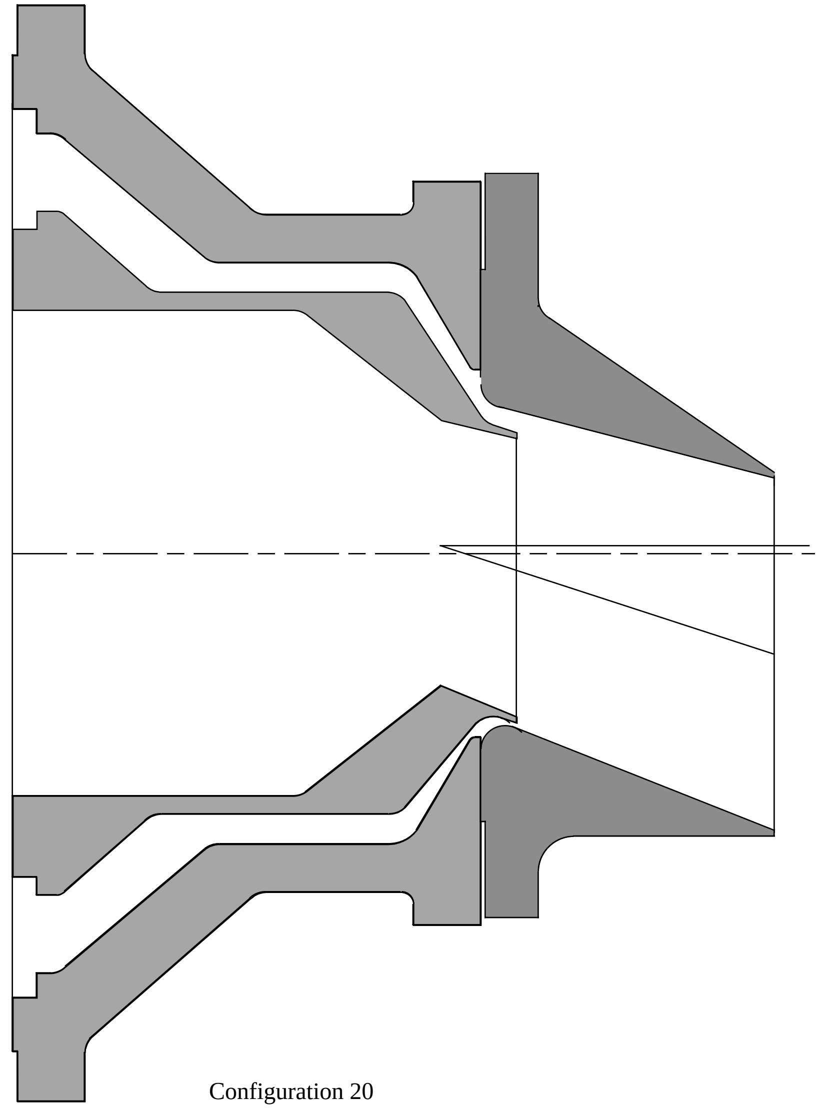
Configuration 17 Configuration 18

(i) Configurations 17 and 18.

Figure 5. Continued.



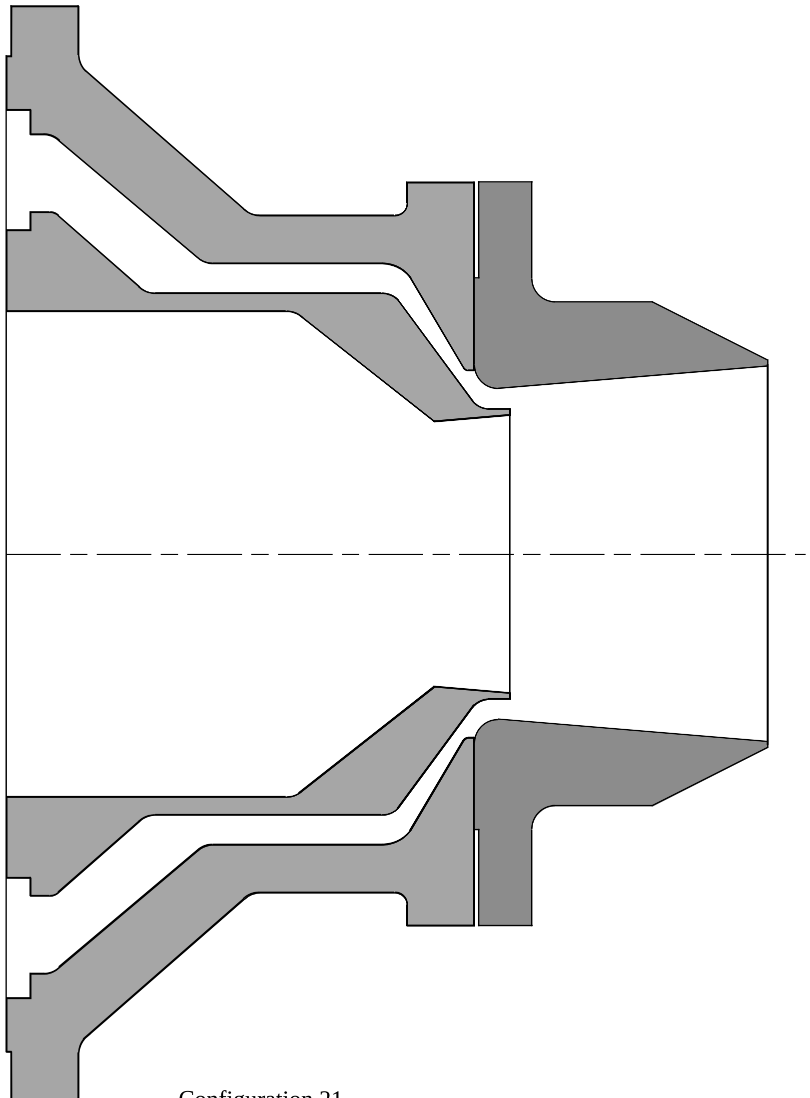
Configuration 19



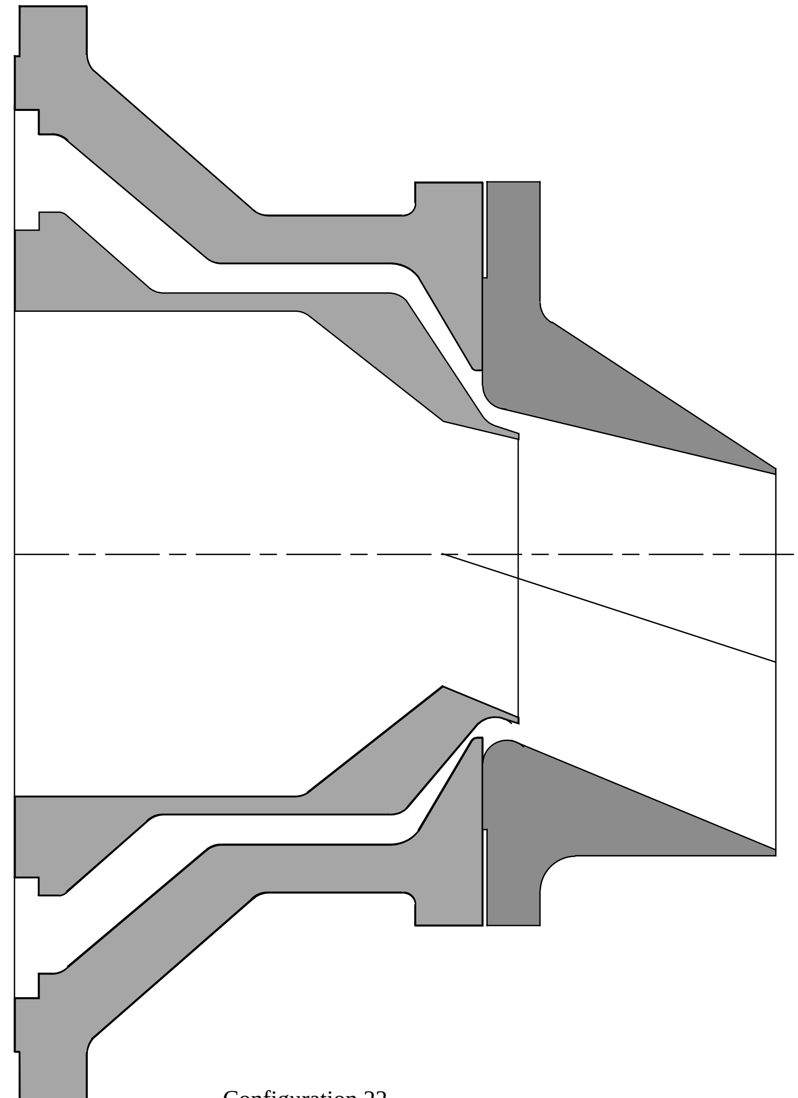
Configuration 20

(j) Configurations 19 and 20.

Figure 5. Continued.



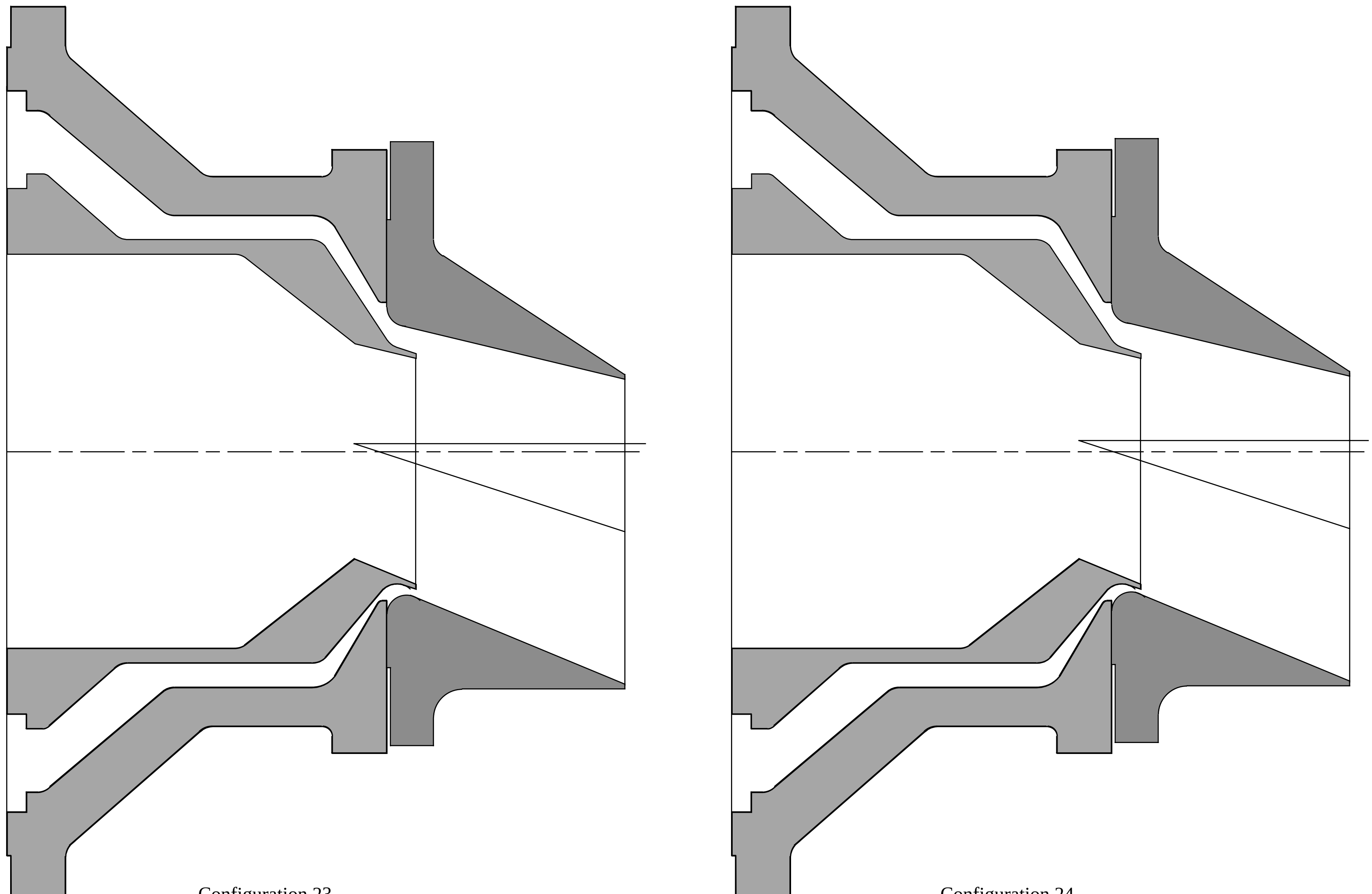
Configuration 21



Configuration 22

(k) Configurations 21 and 22.

Figure 5. Continued.

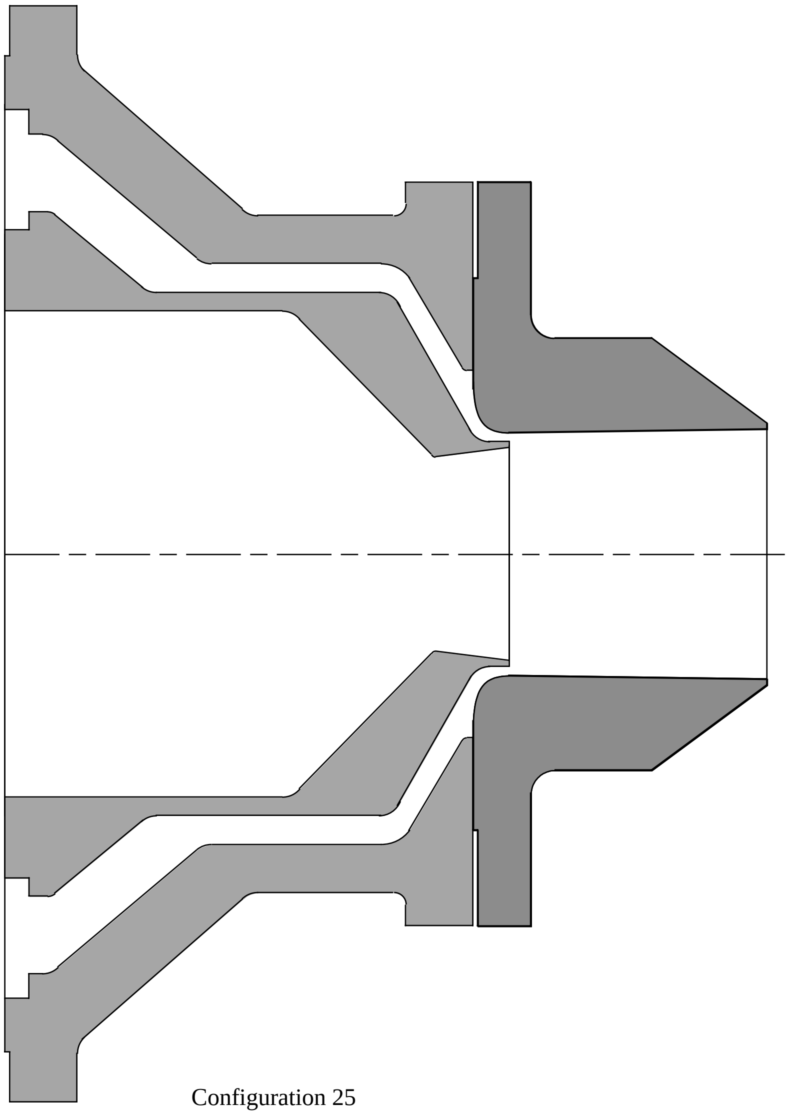


Configuration 23

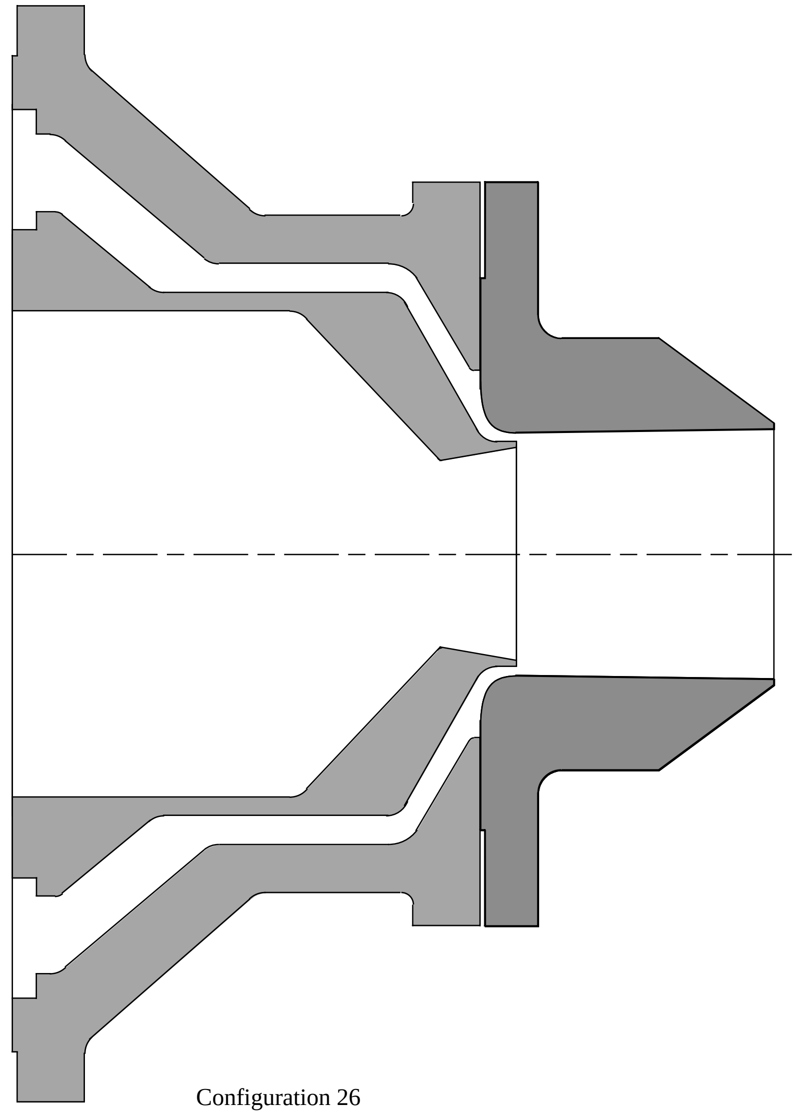
Configuration 24

(l) Configurations 23 and 24.

Figure 5. Continued.



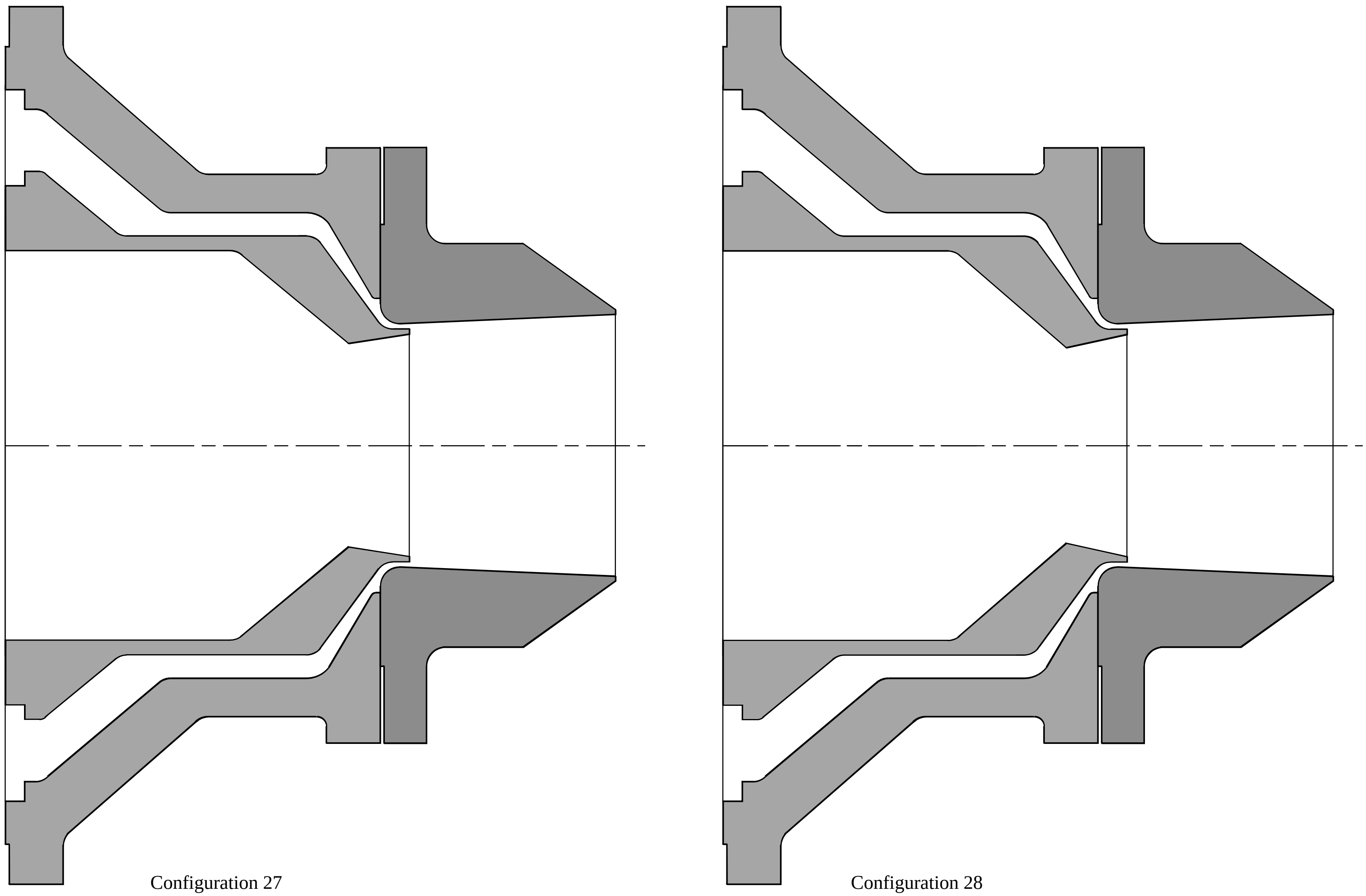
Configuration 25



Configuration 26

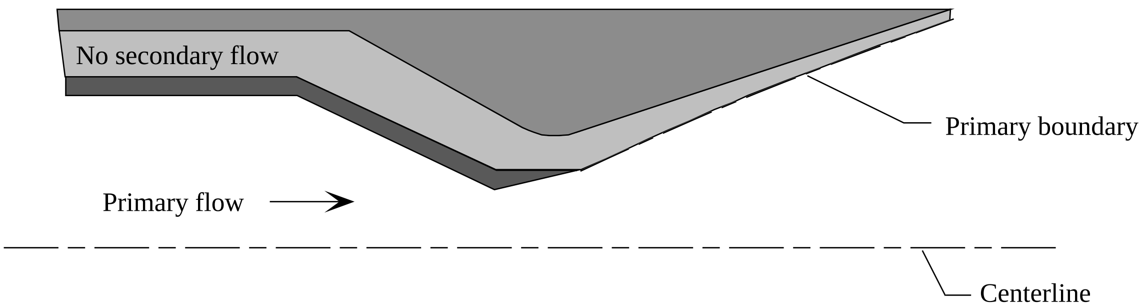
(m) Configurations 25 and 26.

Figure 5. Continued.

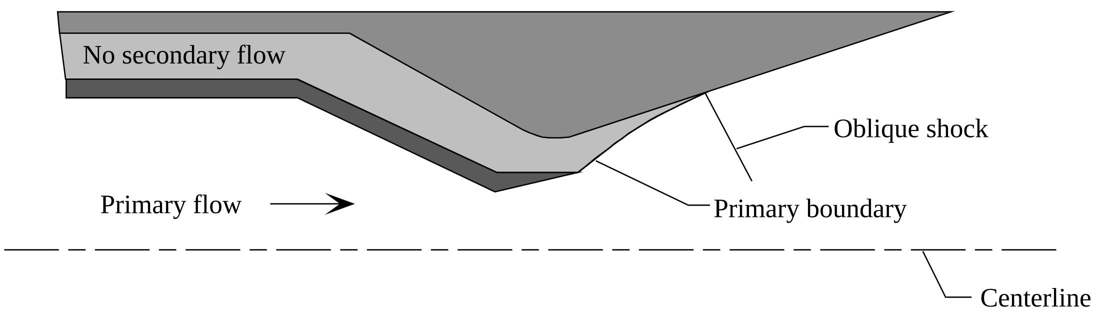


(n) Configurations 27 and 28.

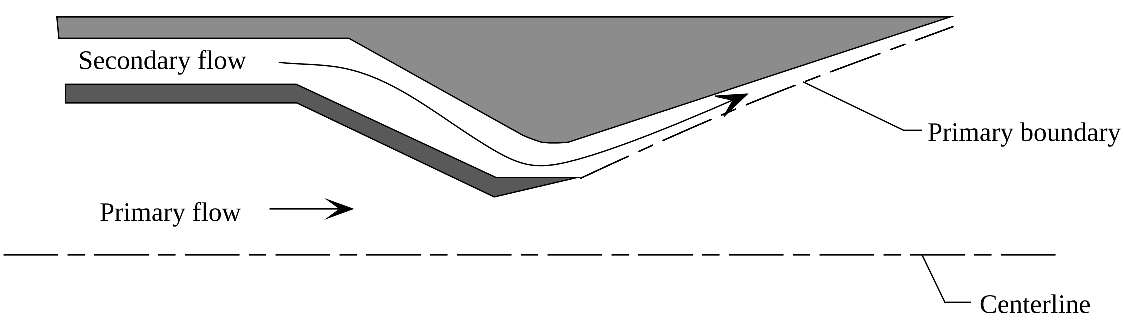
Figure 5. Concluded.



(a) Low primary nozzle ratio and no secondary flow.

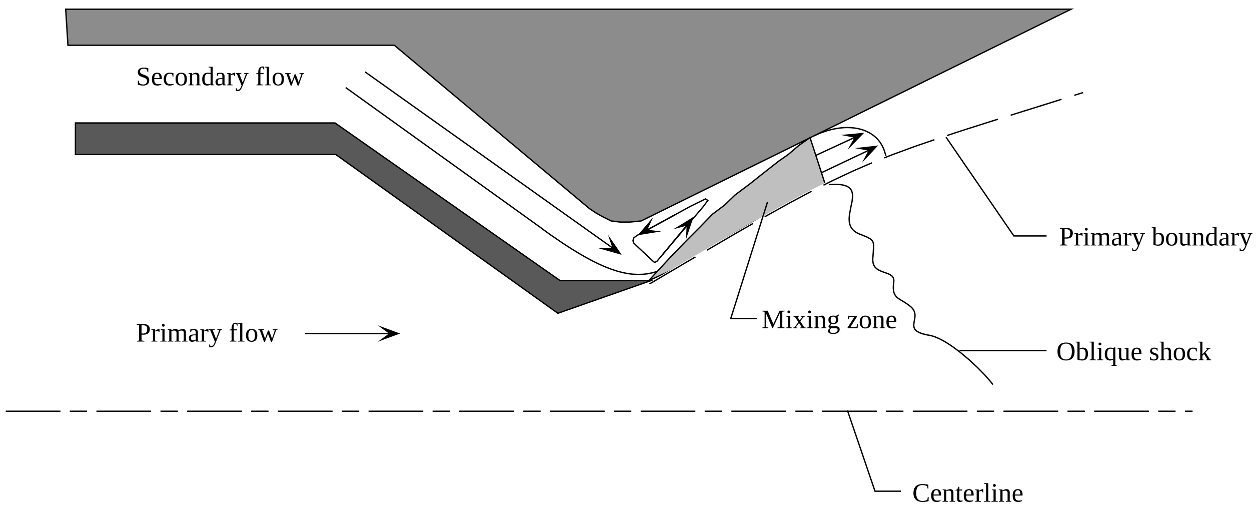


(b) Higher primary nozzle pressure ratio and no secondary flow.

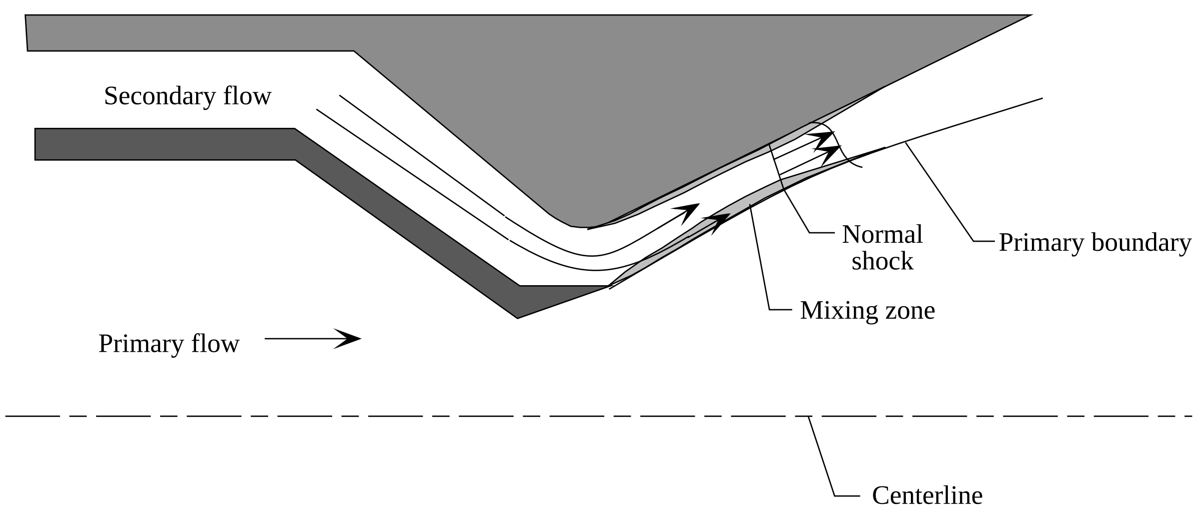


(c) Low secondary flow and low primary nozzle pressure ratio.

Figure 6. Ejector flow regimes.



(d) Low secondary flow and moderate primary nozzle pressure ratio (impingement).



(e) Higher secondary flow and low-to-moderate primary pressure ratio.

Figure 6. Concluded.

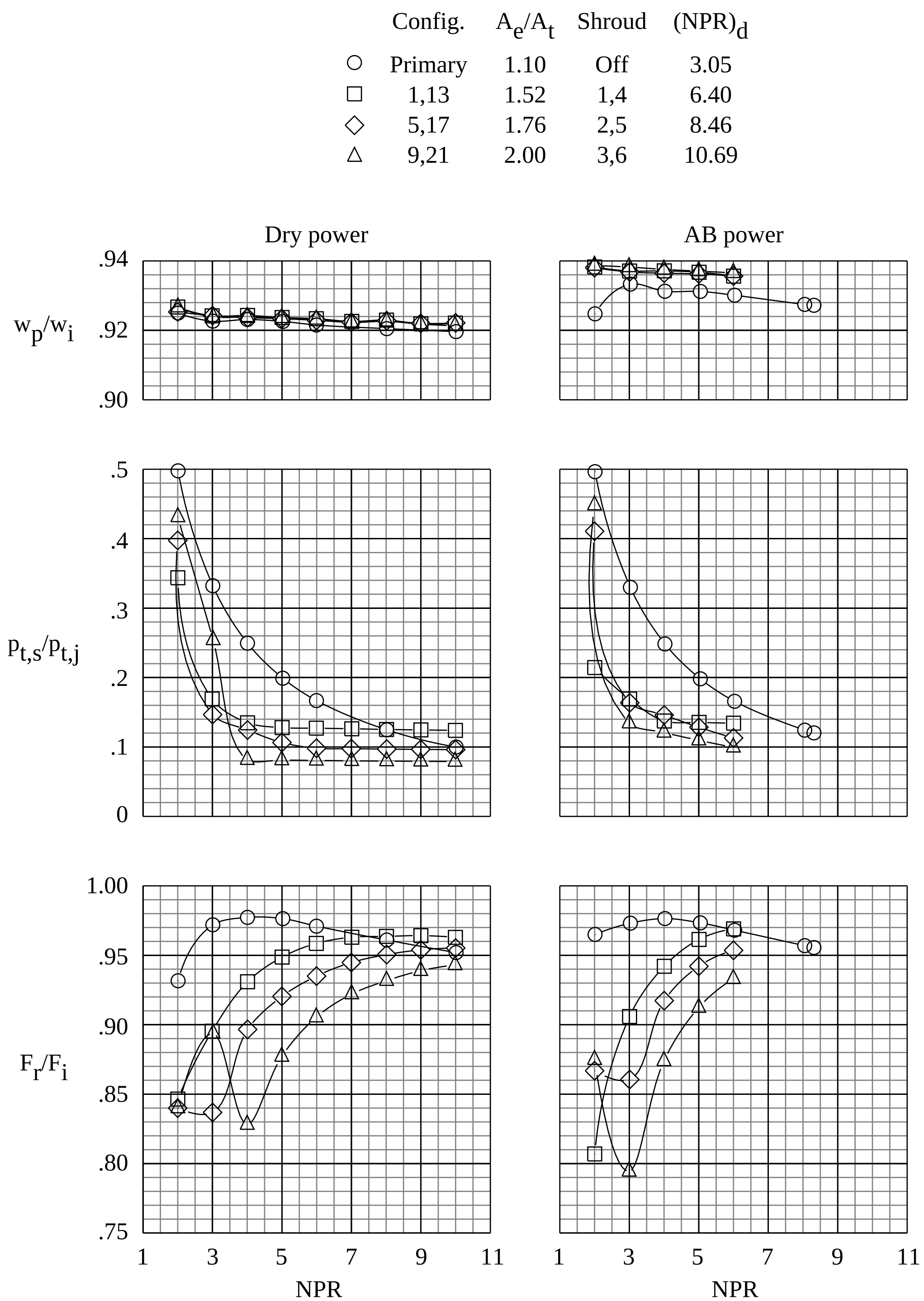
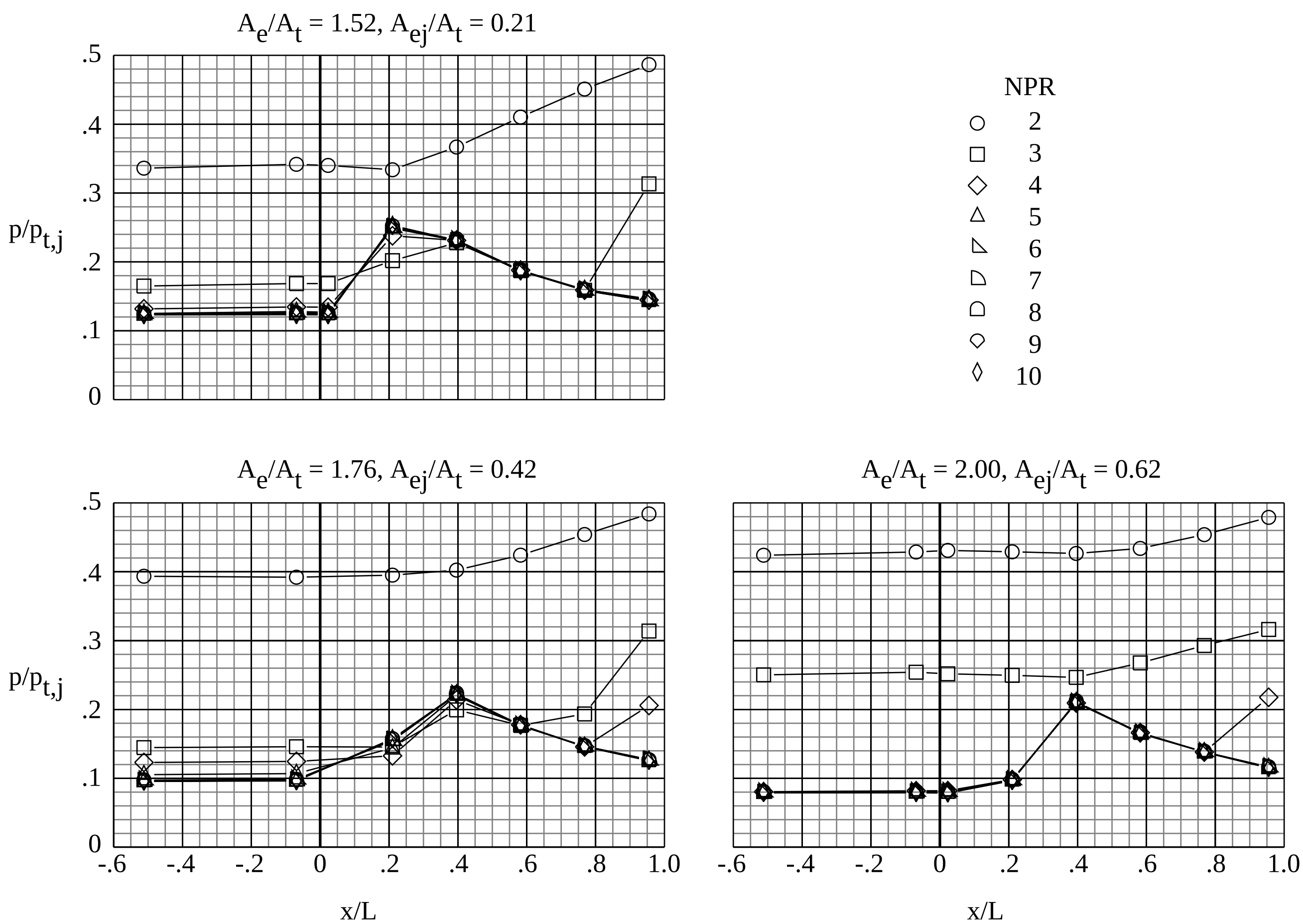
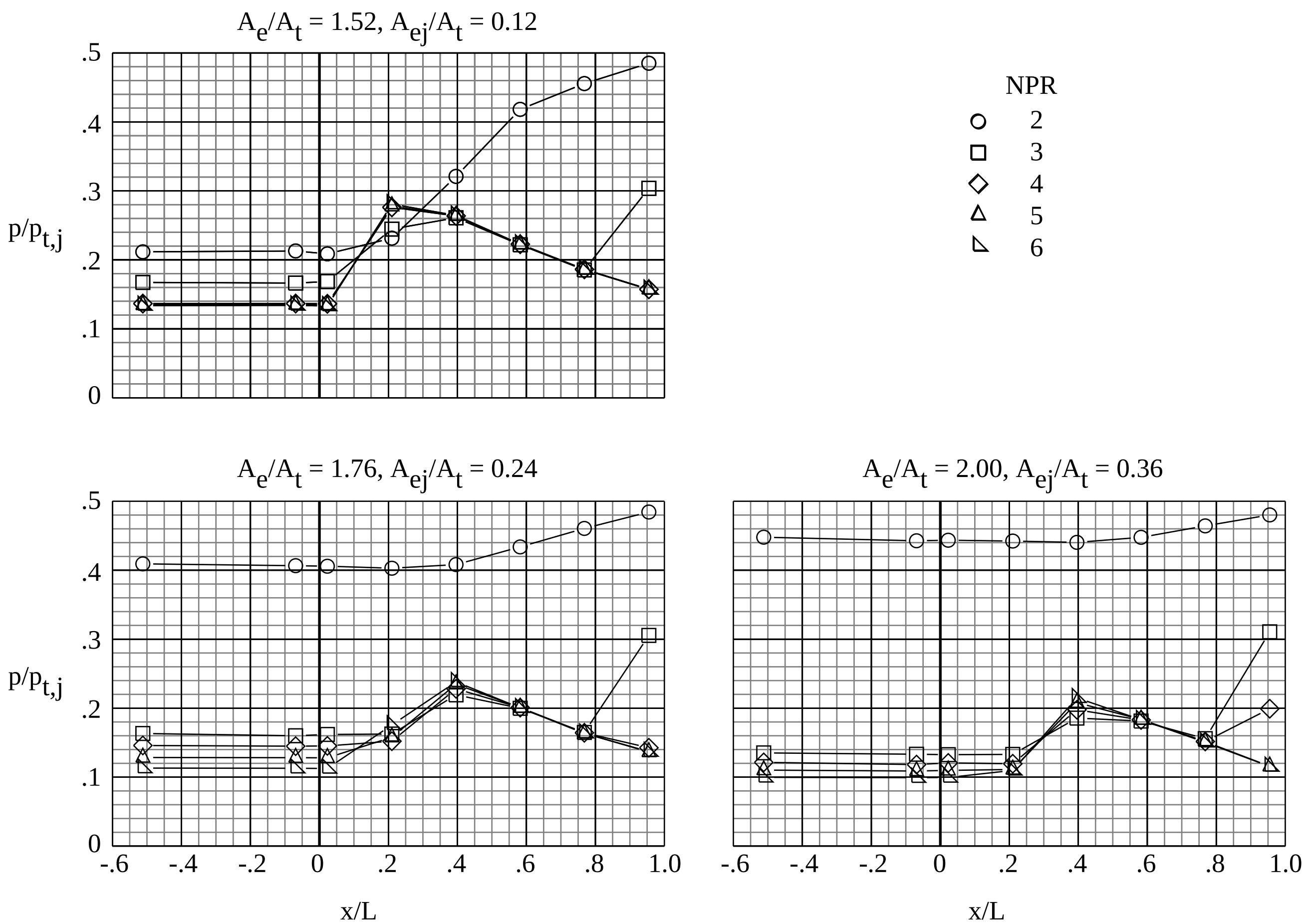


Figure 7. Effect of shroud on performance, pumping characteristics, and discharge coefficients. $\delta = 0°$; no secondary flow.



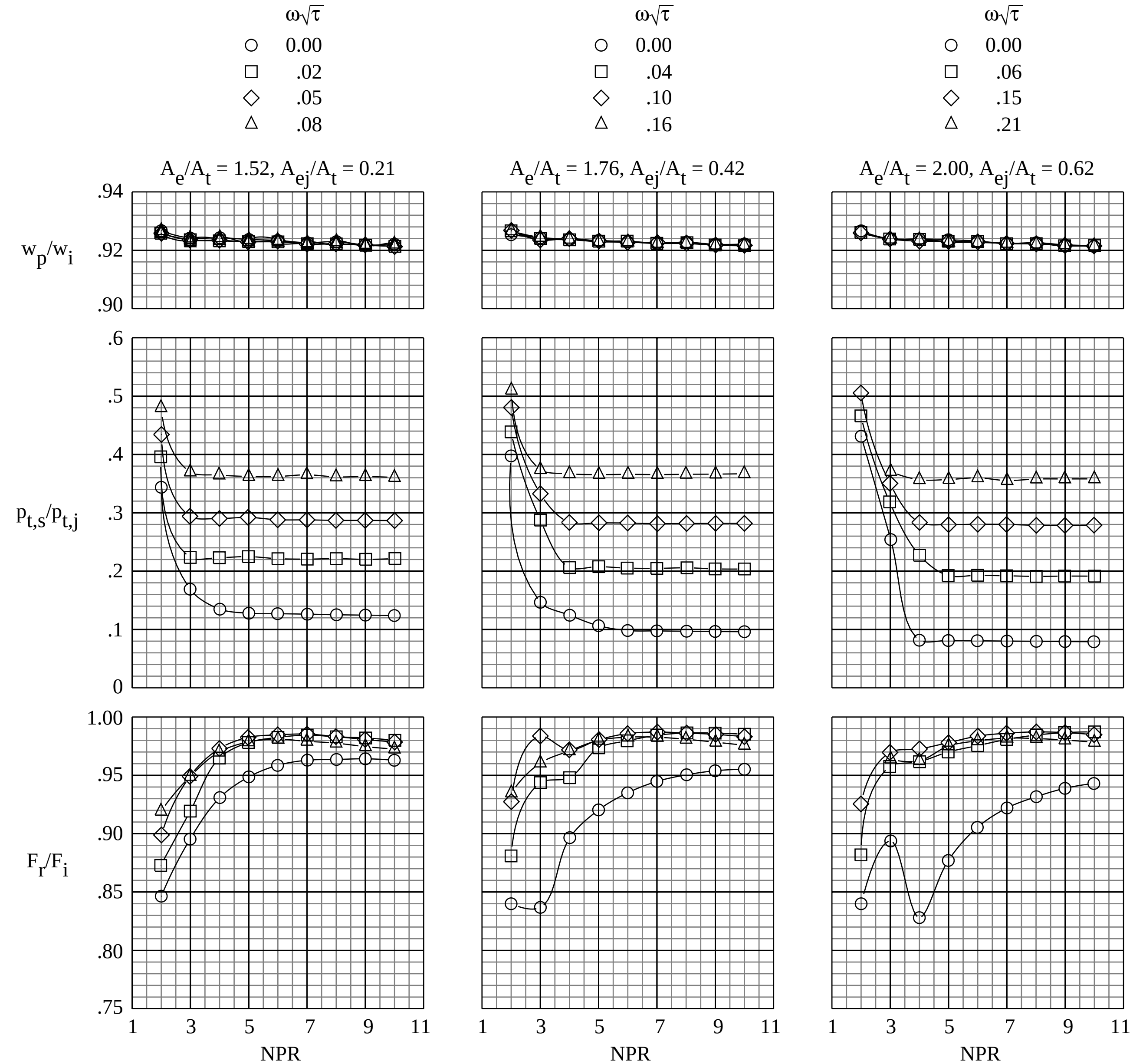
(a) Dry power.

Figure 8. Effect of shroud expansion (A_e/A_t) and ejector area ratio (A_{ej}/A_t) on shroud static pressure distribution. $\delta = 0°$; no secondary flow.



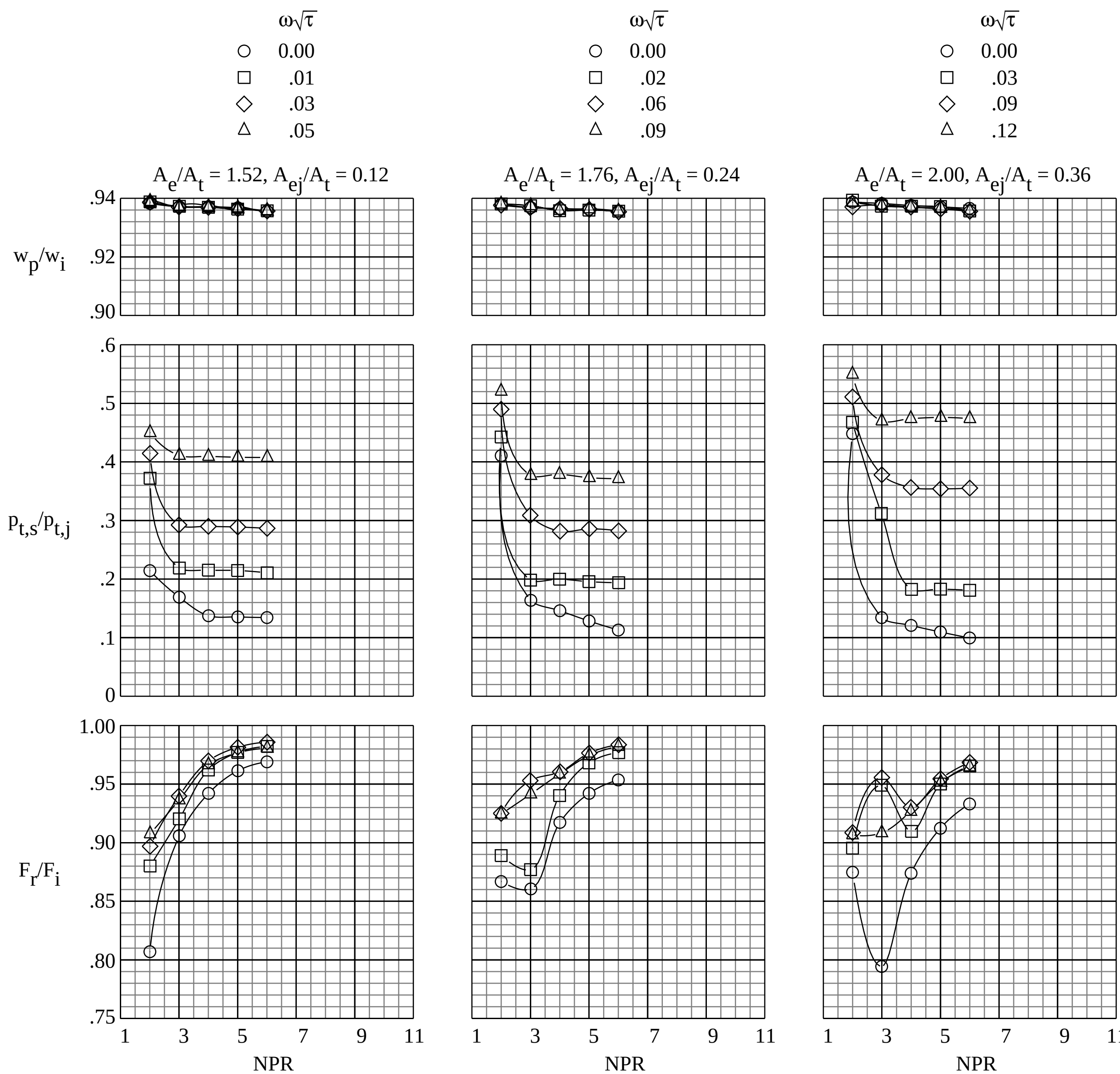
(b) AB power.

Figure 8. Concluded.



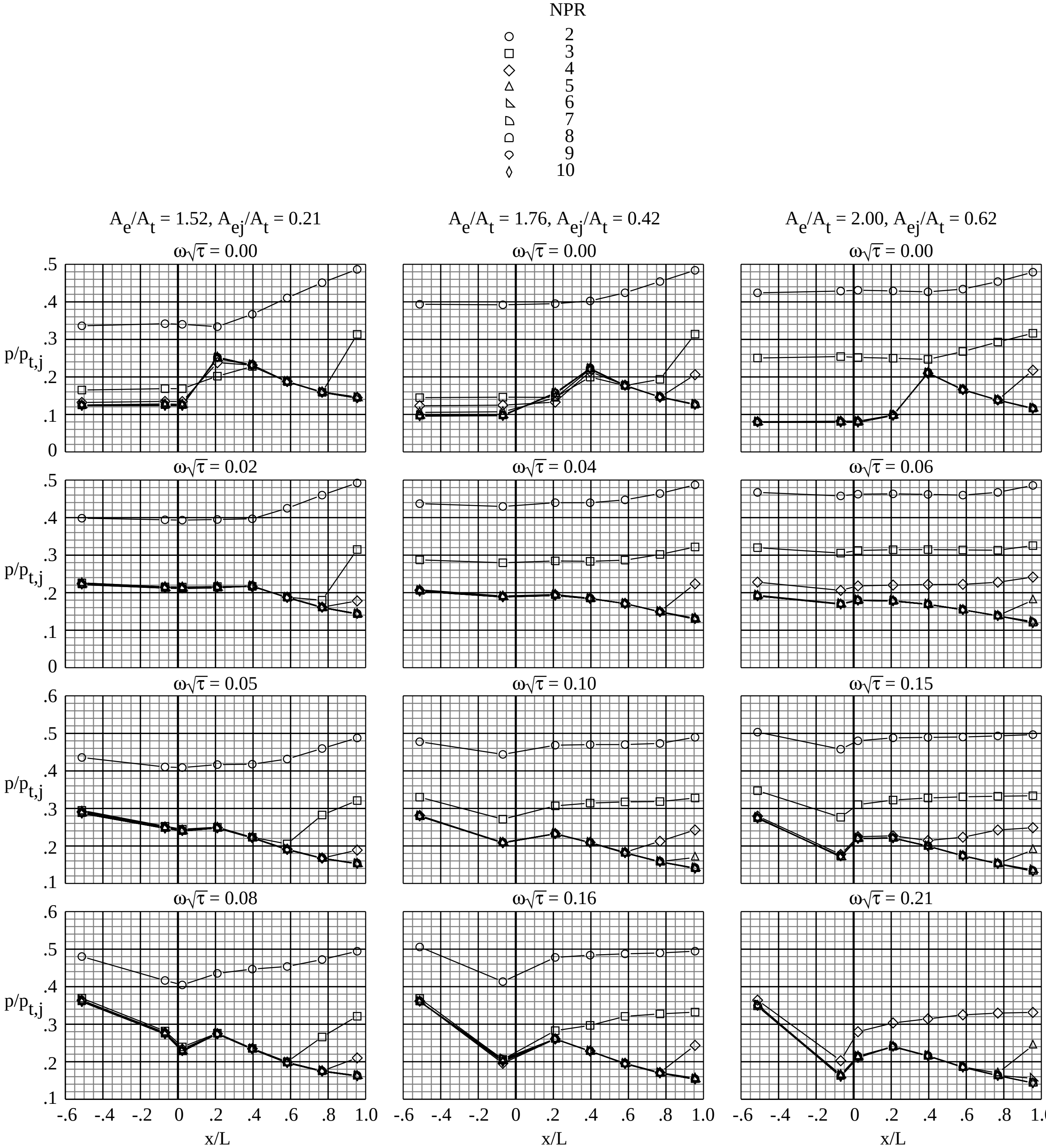
(a) Dry power.

Figure 9. Effect of secondary flow on performance, pumping characteristics, and discharge coefficients of unvectored ejector nozzles.



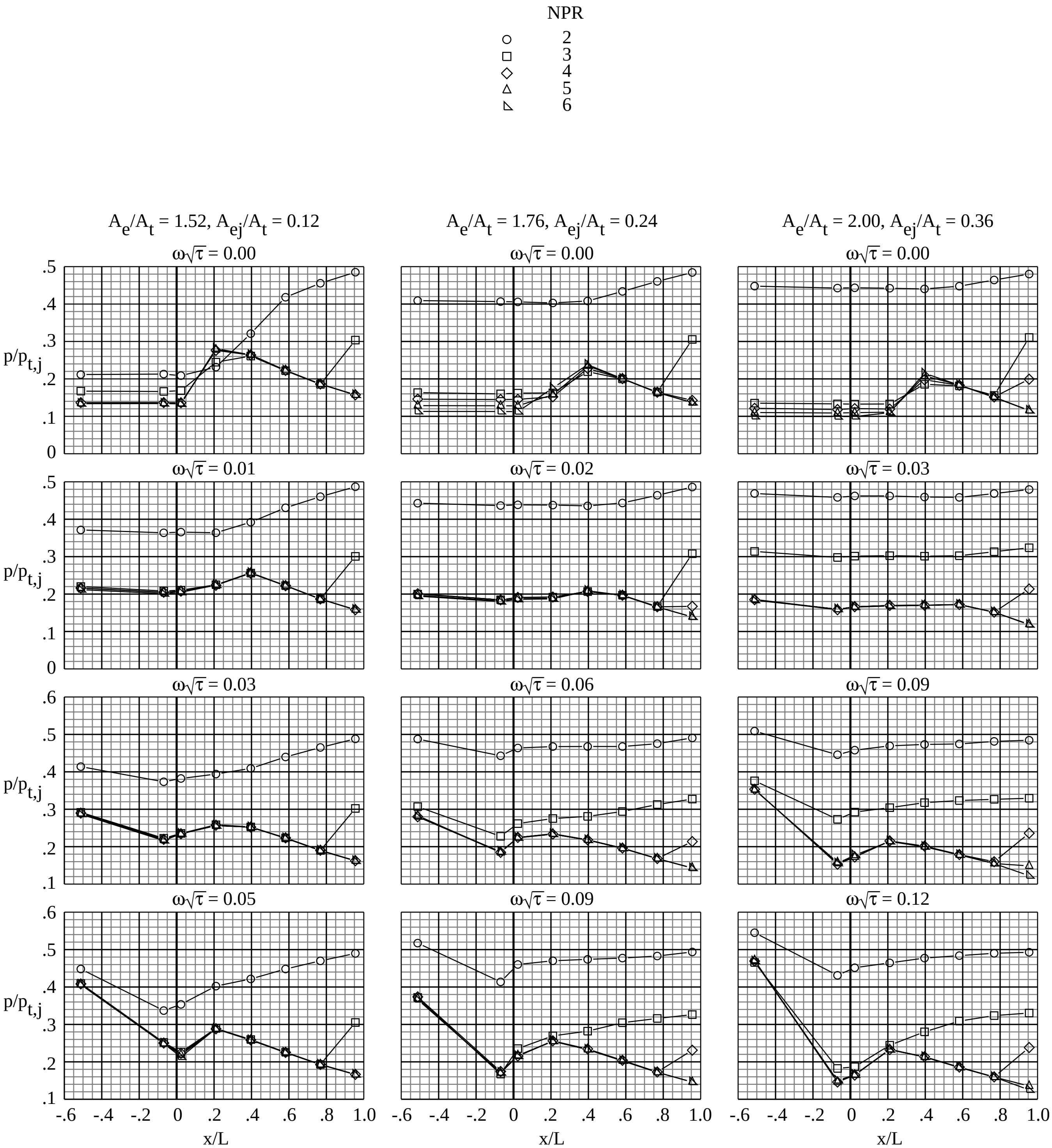
(b) AB power.

Figure 9. Concluded.



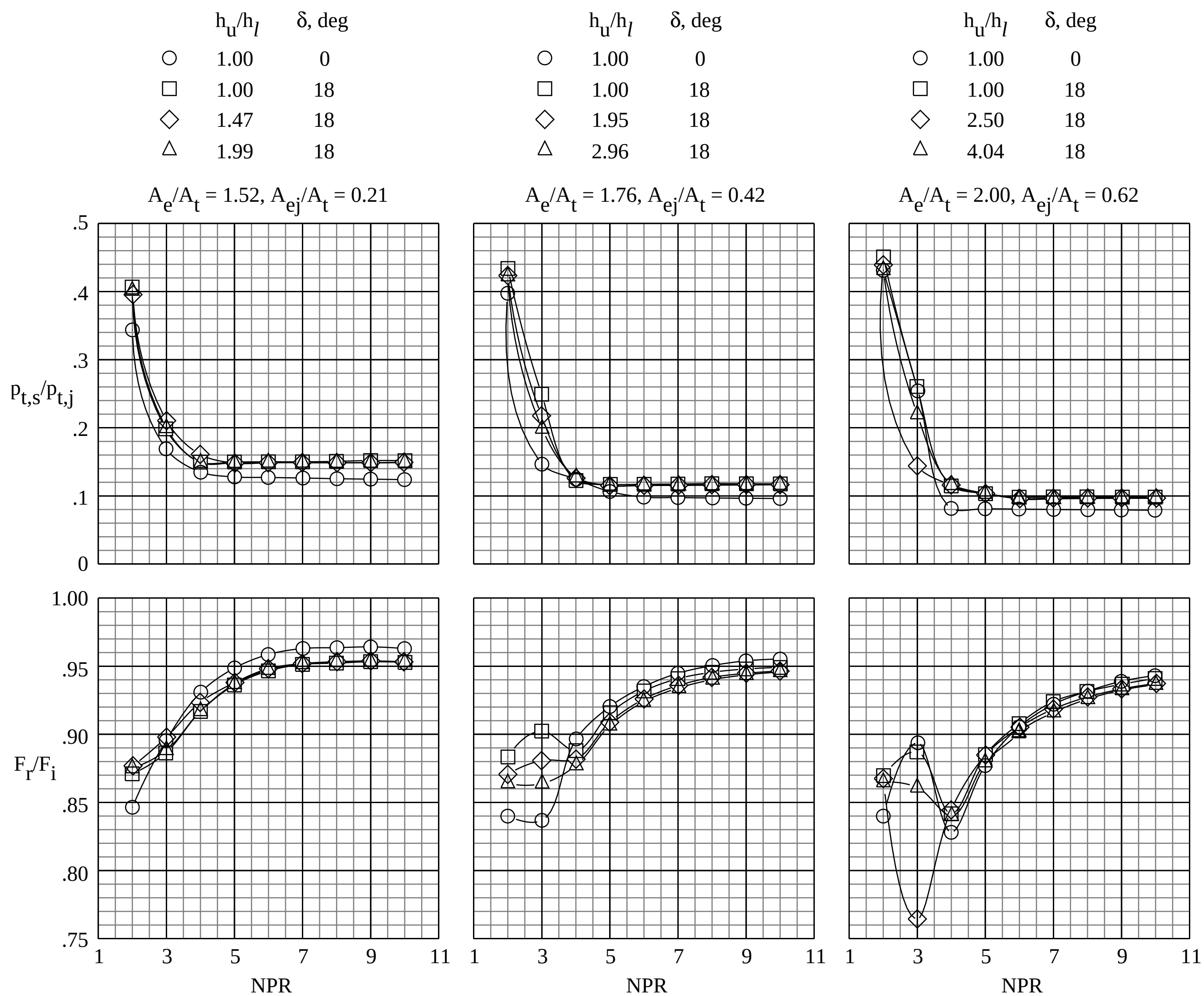
(a) Dry power.

Figure 10. Effect of secondary flow on shroud top-centerline static pressure distributions of unvectored ejector nozzles.



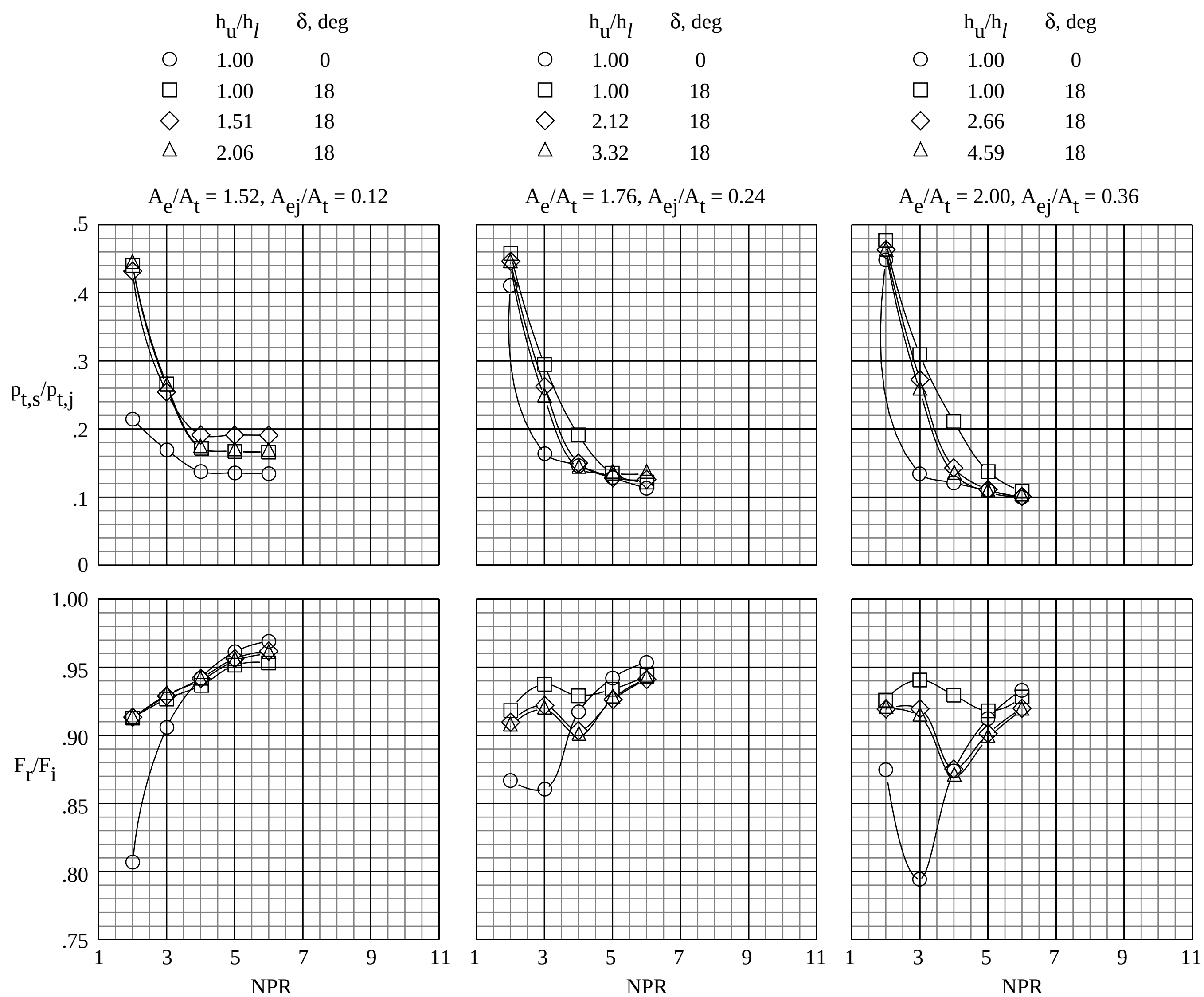
(b) AB power.

Figure 10. Concluded.



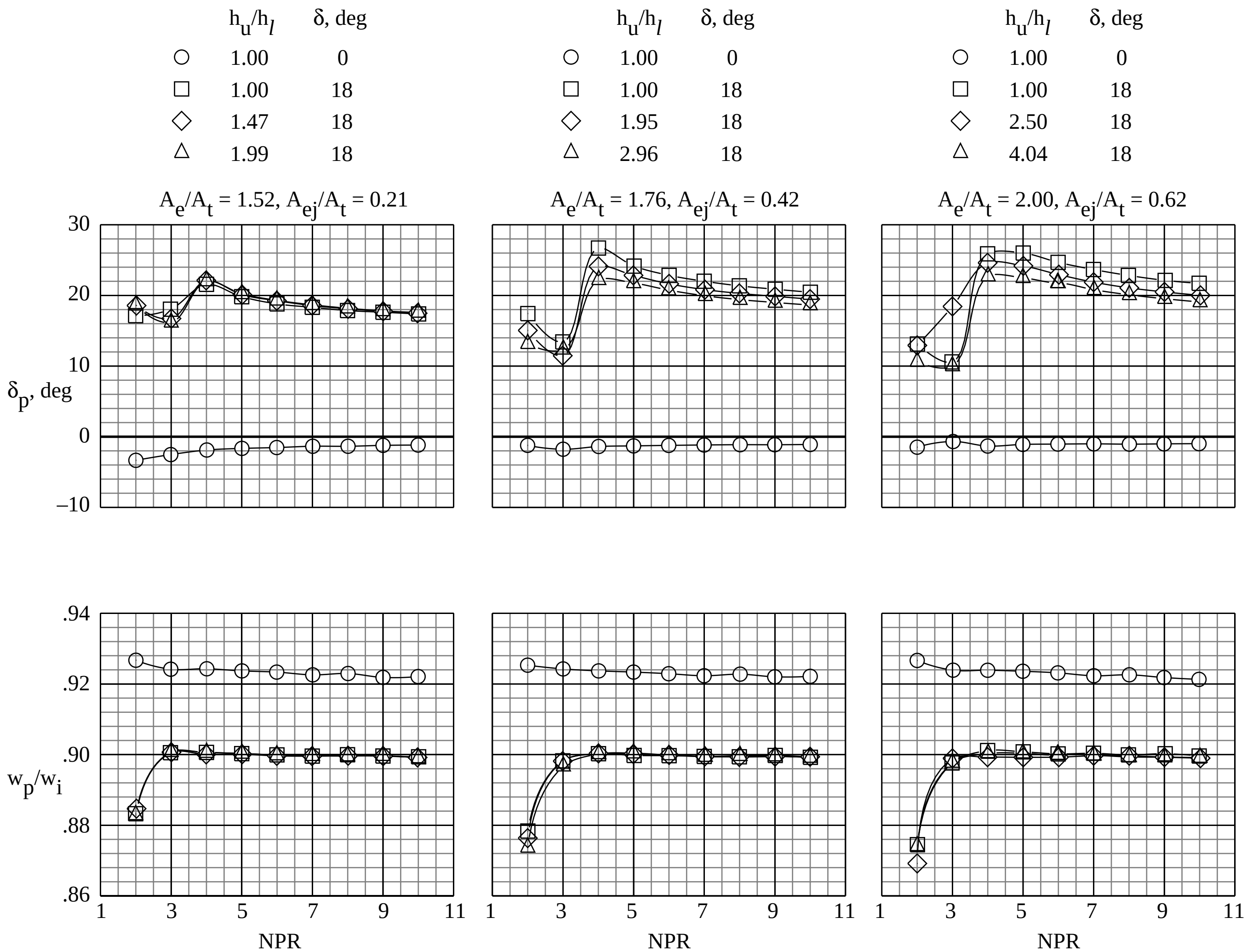
(a) Dry power.

Figure 11. Effect of geometric vector angle (δ) and slot-height ratio (h_u/h_l) on performance and pumping characteristics of ejector nozzles. No secondary flow.



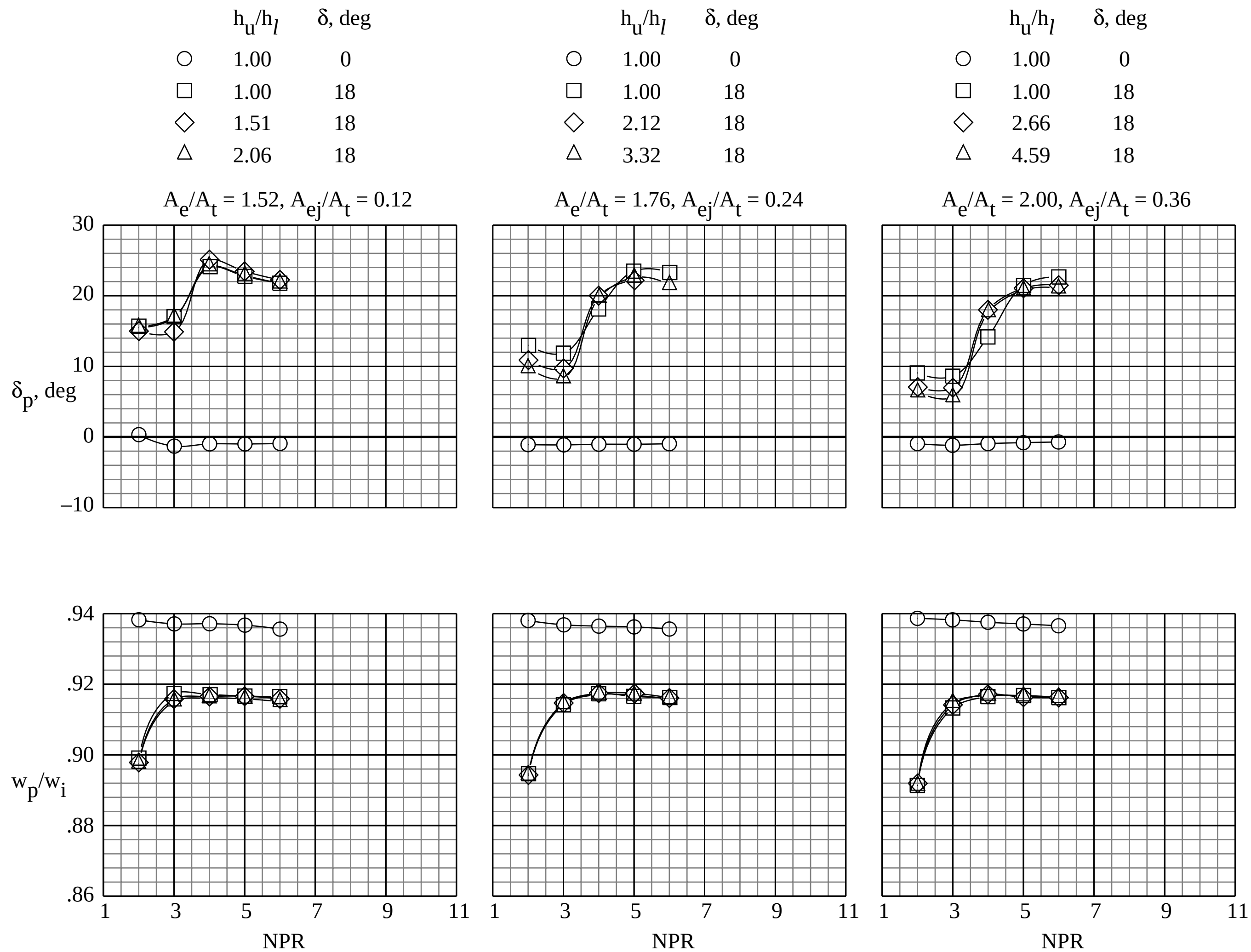
(b) AB power.

Figure 11. Concluded.



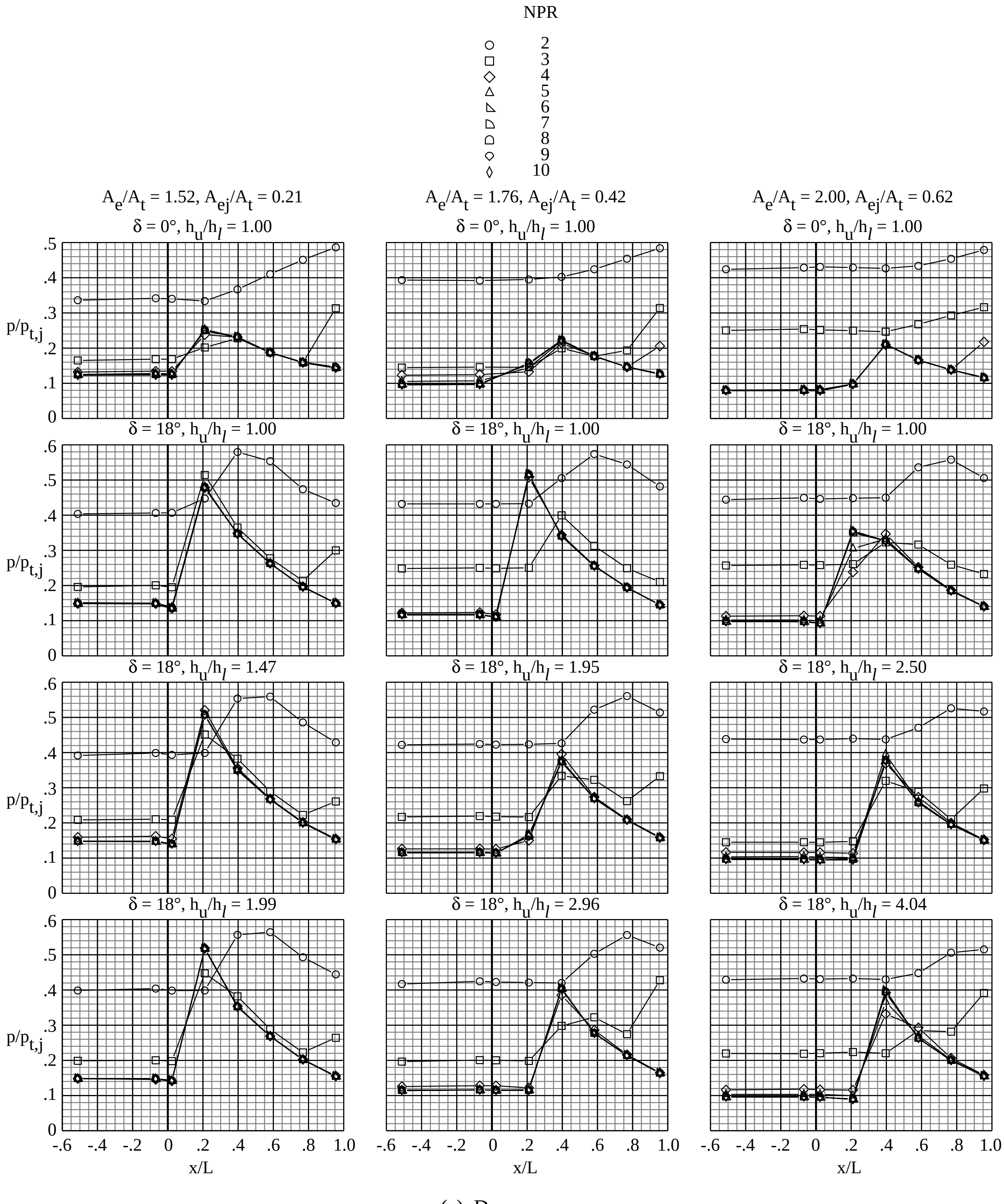
(a) Dry power.

Figure 12. Effect of geometric vector angle (δ) and slot-height ratio (h_u/h_l) on discharge coefficients and thrust vector angles of ejector nozzles. No secondary flow.



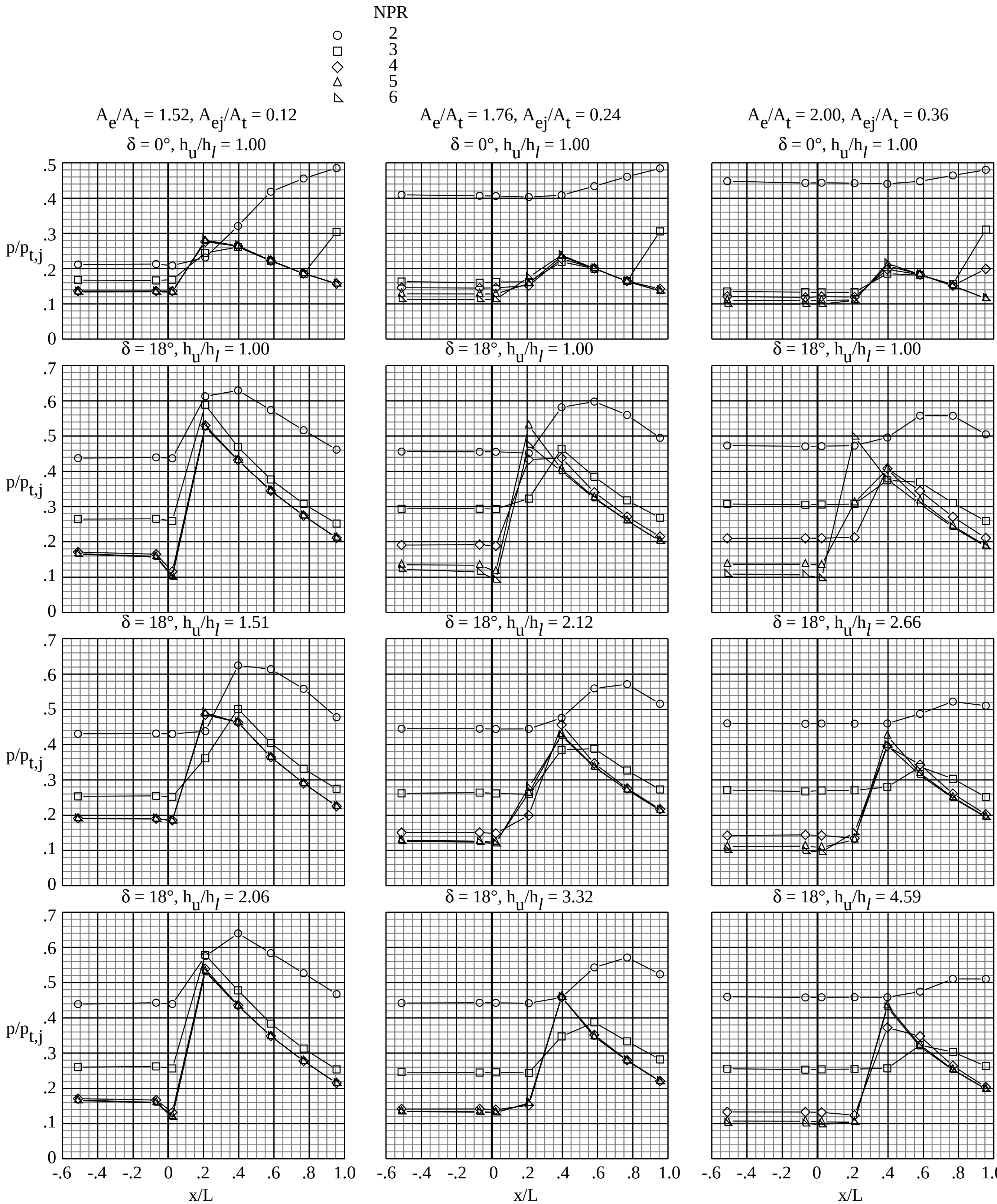
(b) AB power.

Figure 12. Concluded.



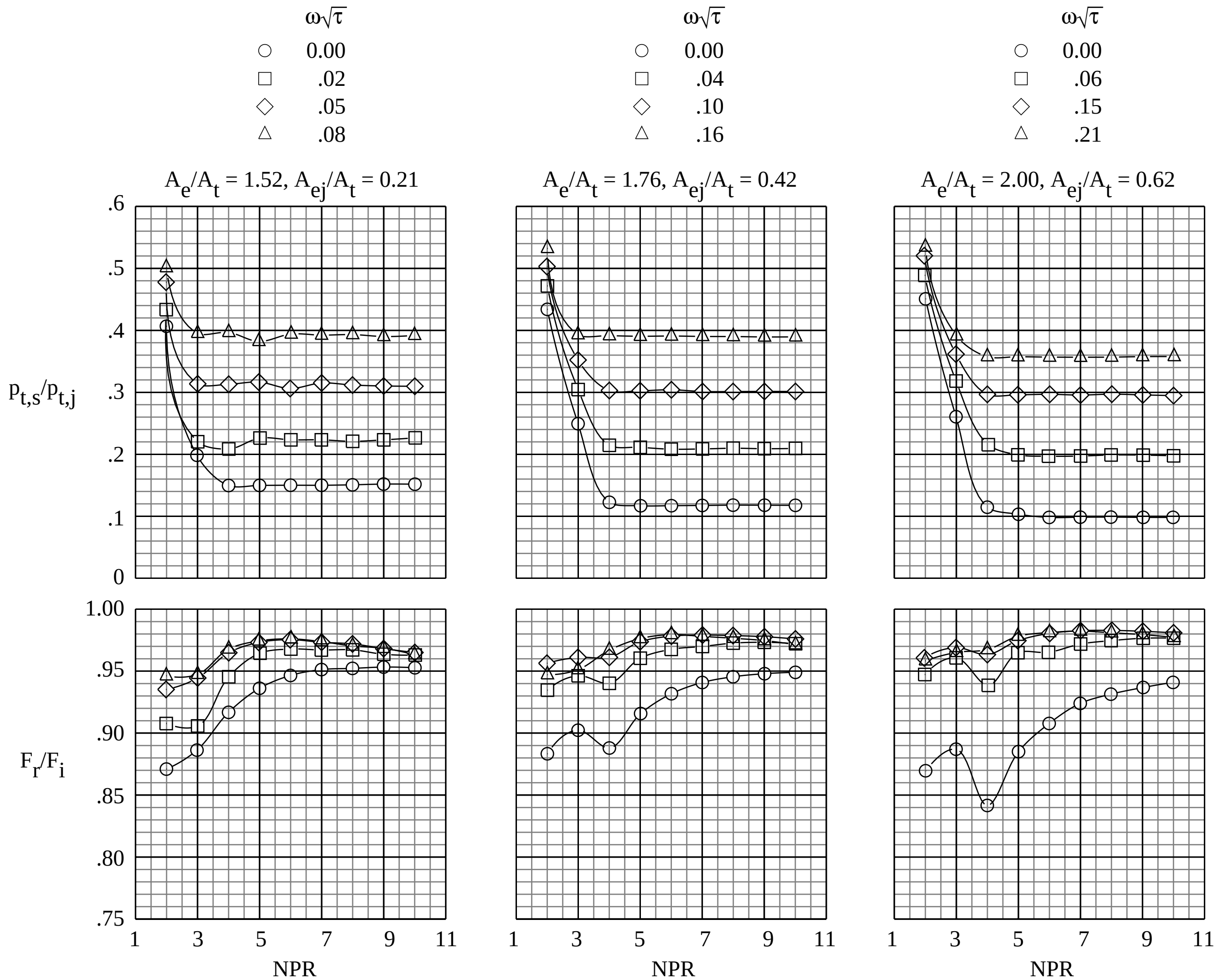
(a) Dry power.

Figure 13. Effect of geometric vector angle (δ) and slot-height ratio (h_u/h_l) on shroud top-centerline static pressure distributions of ejector nozzles. No secondary flow.



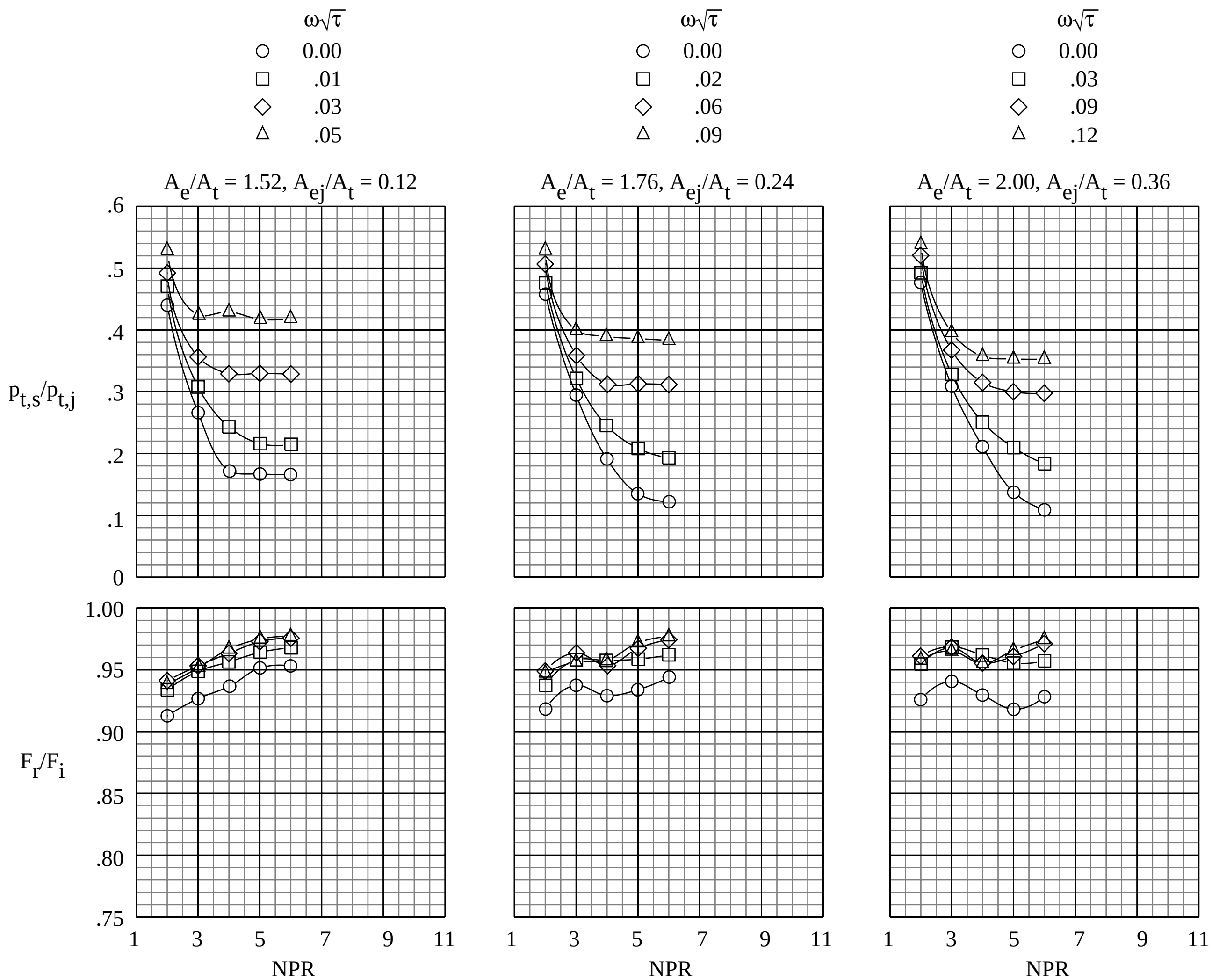
(b) AB power.

Figure 13. Concluded.



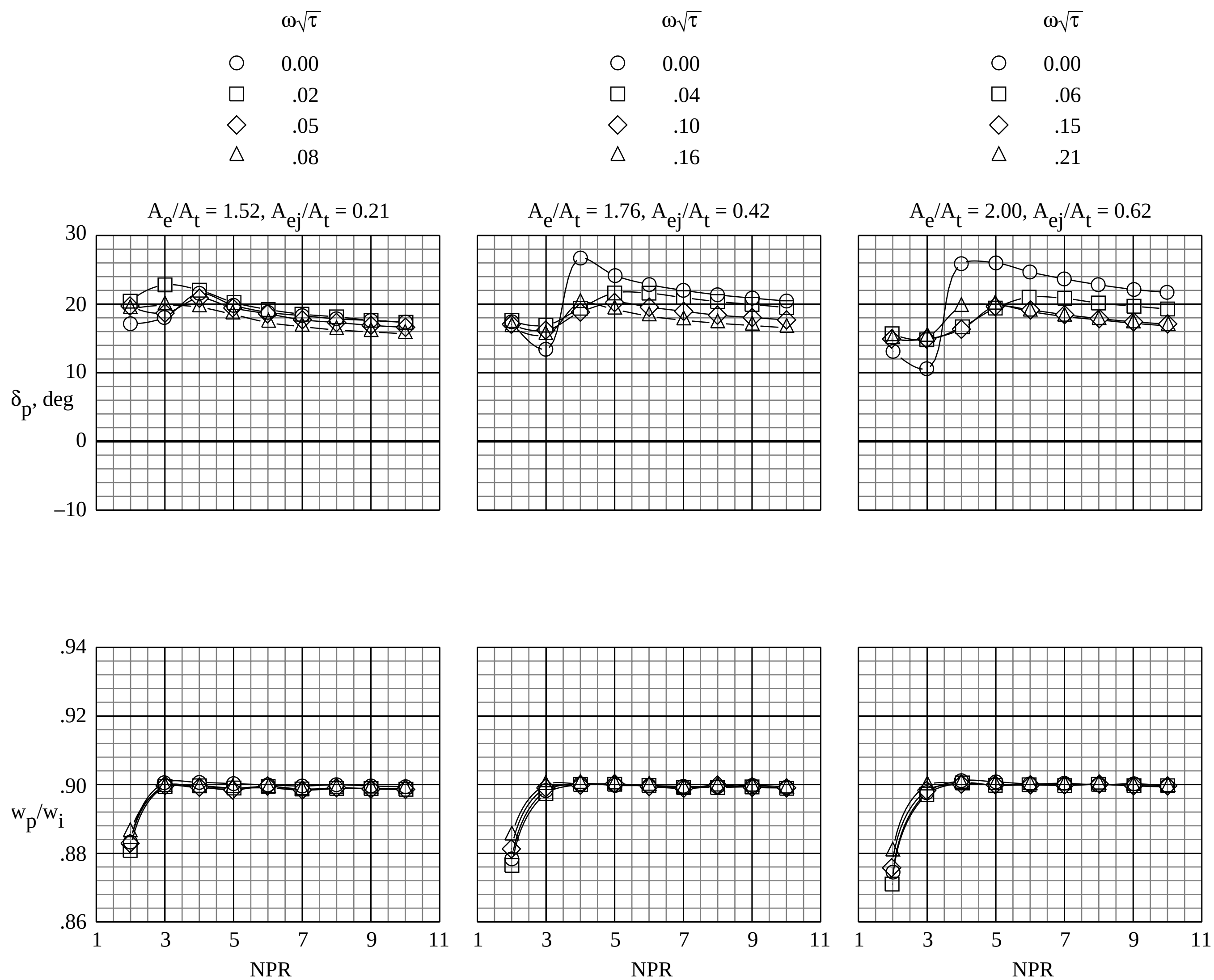
(a) Dry power.

Figure 14. Effect of secondary flow on performance and pumping characteristics of vectored ejector nozzles with $h_u/h_l = 1.00$.



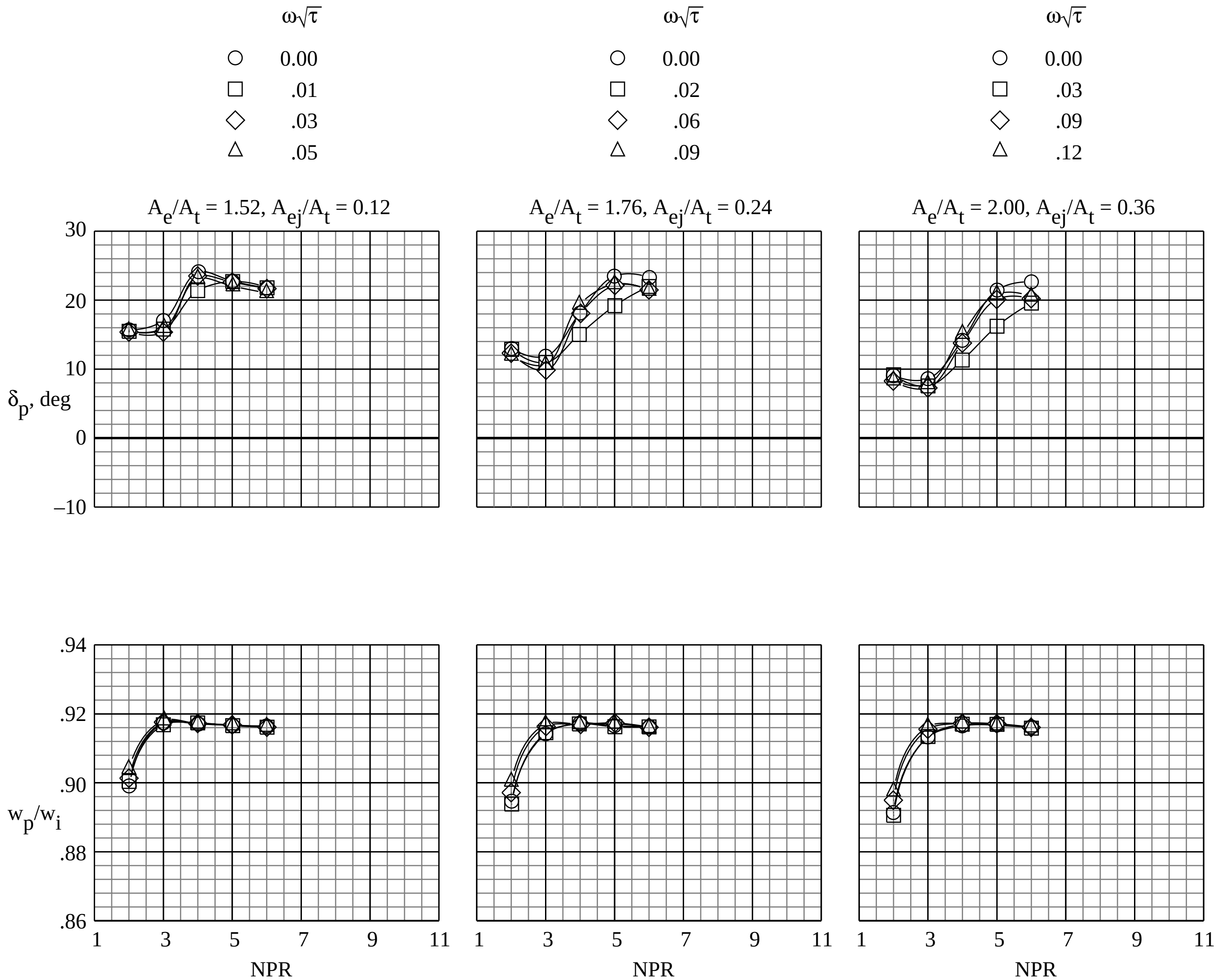
(b) AB power.

Figure 14. Concluded.



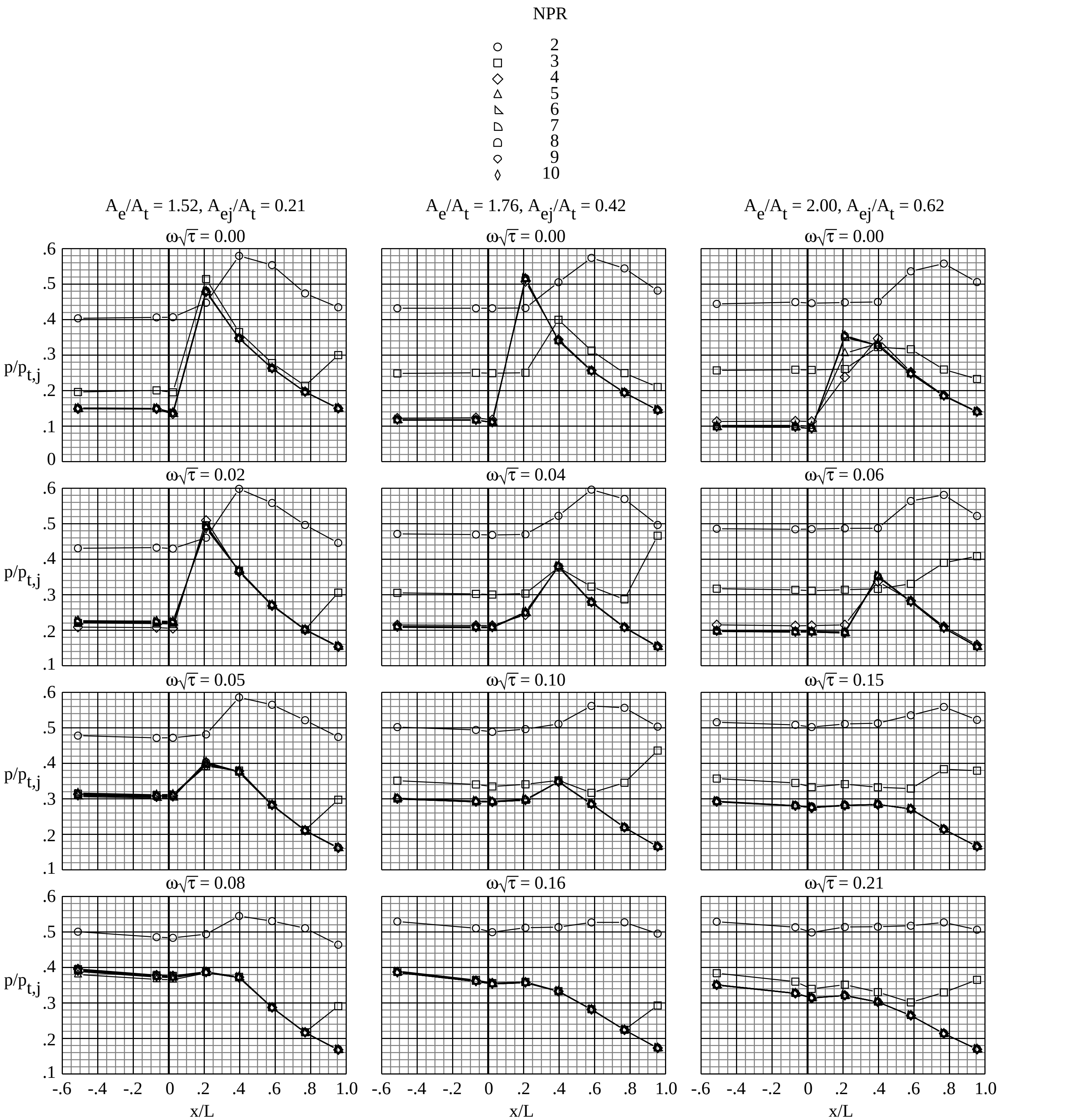
(a) Dry power.

Figure 15. Effect of secondary flow on discharge coefficients and thrust vecotr angles of vectored ejector nozzles with $h_u/h_l = 1.00$.



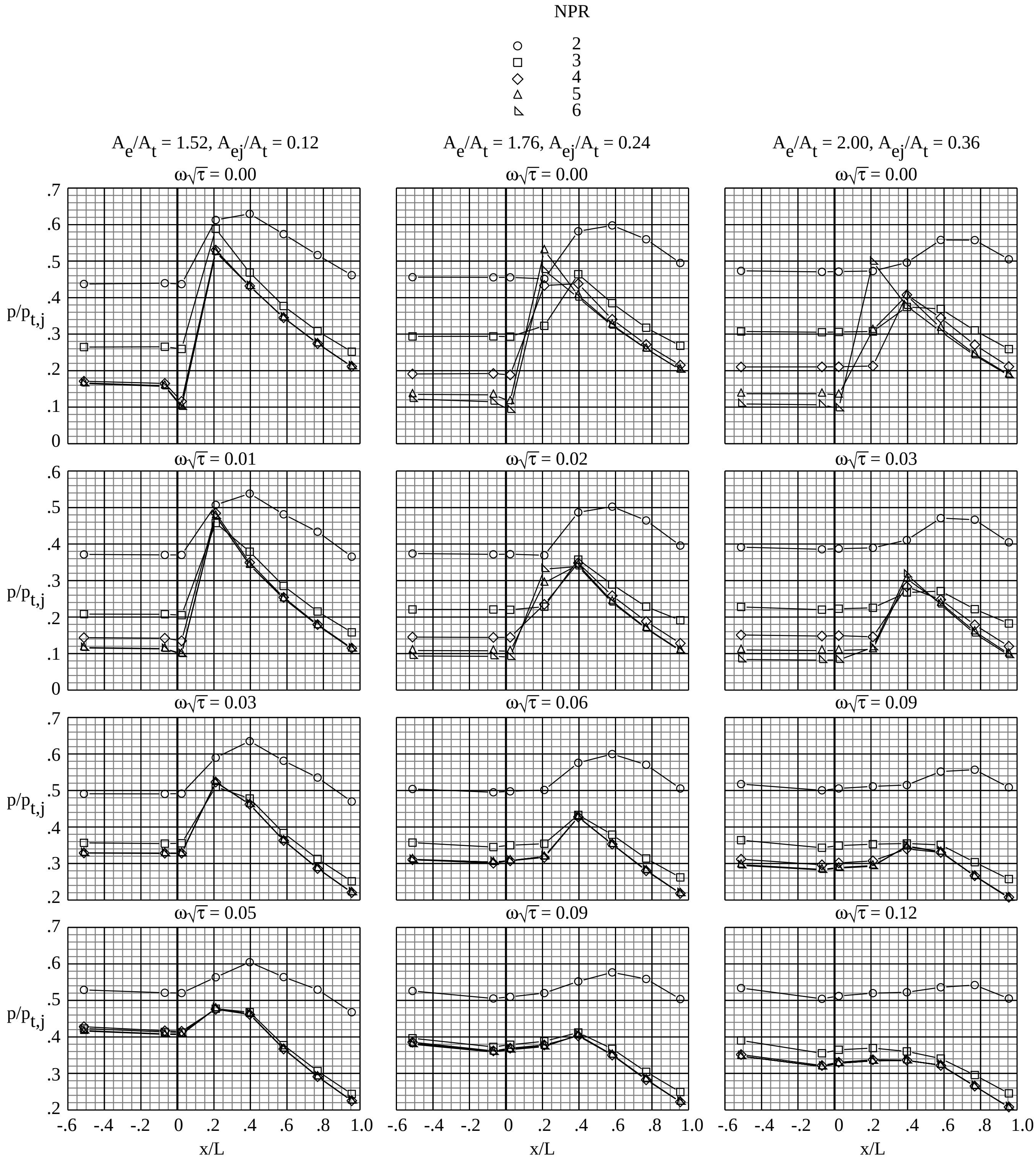
(b) AB power.

Figure 15. Concluded.



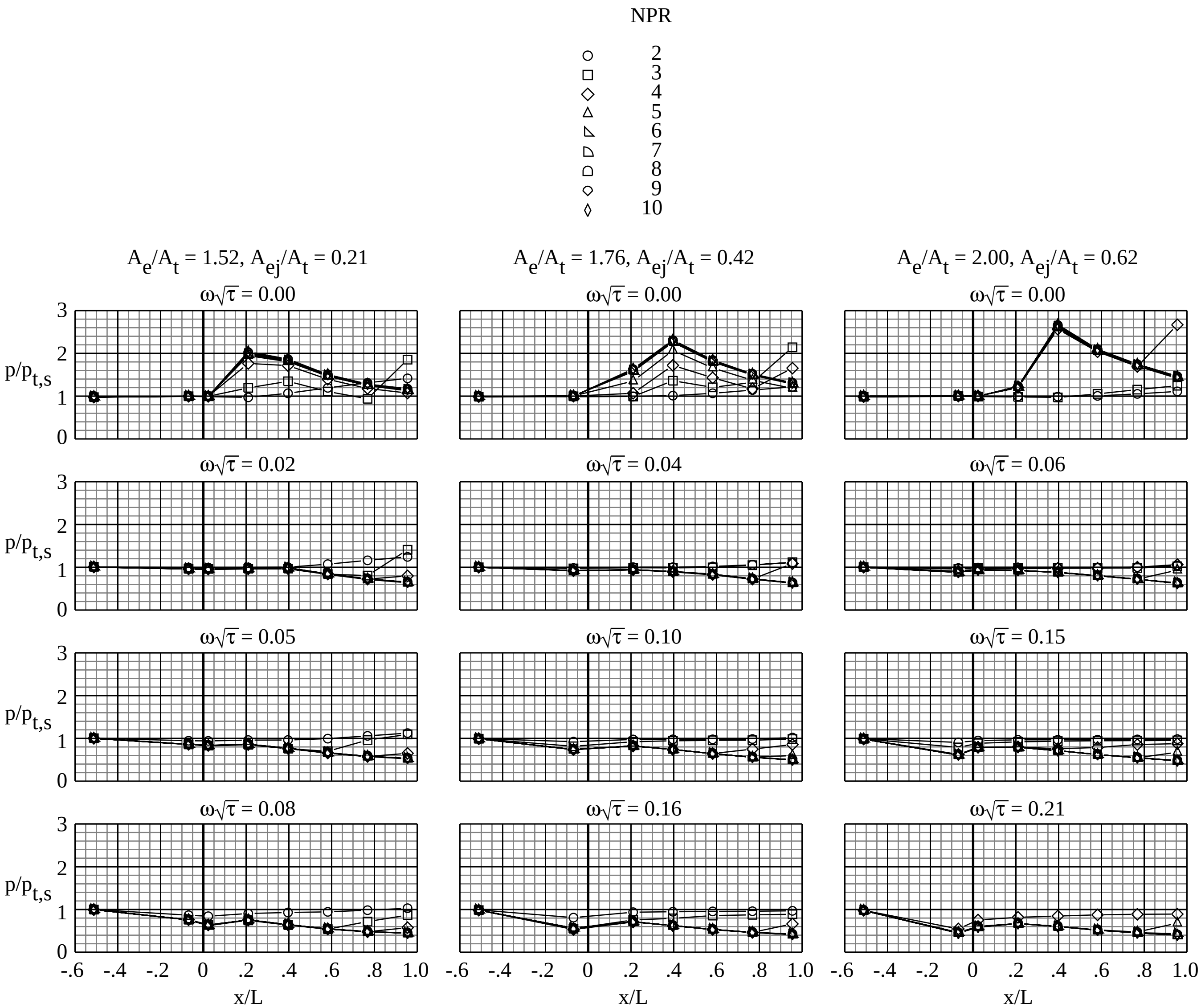
(a) Dry power.

Figure 16. Effect of secondary flow on shroud top-centerline static pressure distributions of vectored ejector nozzles with $h_u/h_l = 1.00$.



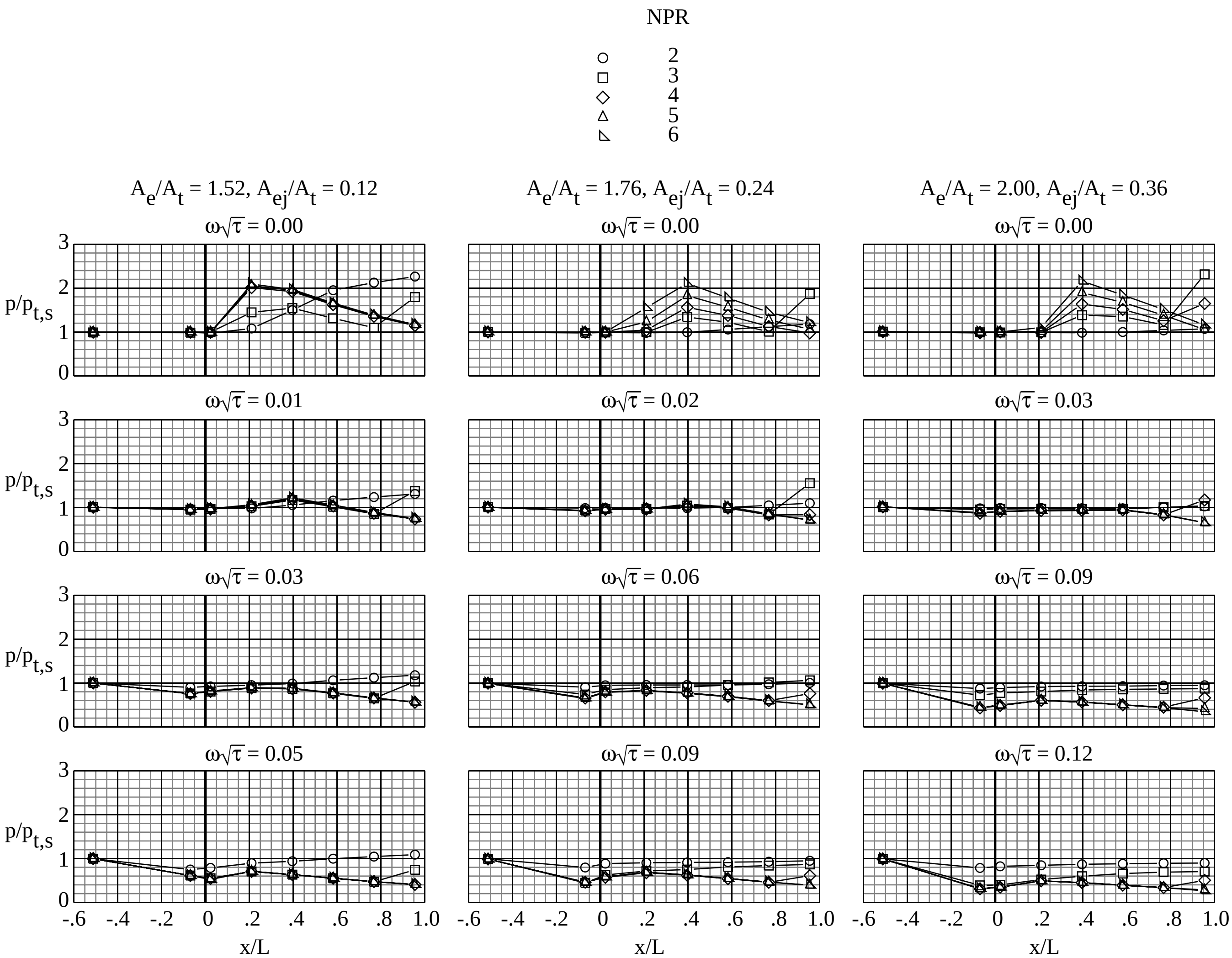
(b) AB power.

Figure 16. Concluded.



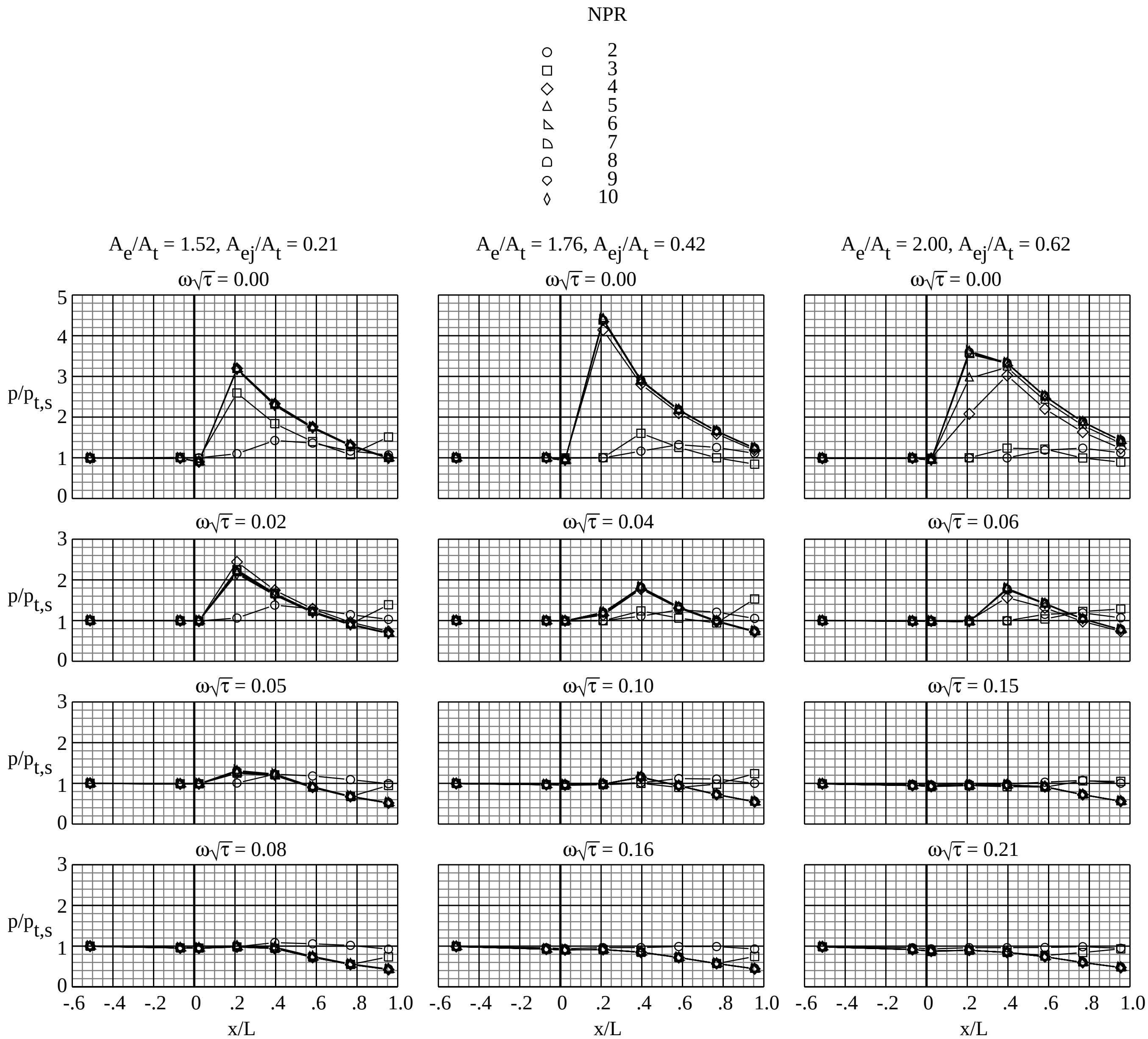
(a) Dry power.

Figure 17. Potential cooling effect of secondary flow on unvectored ejector nozzles.



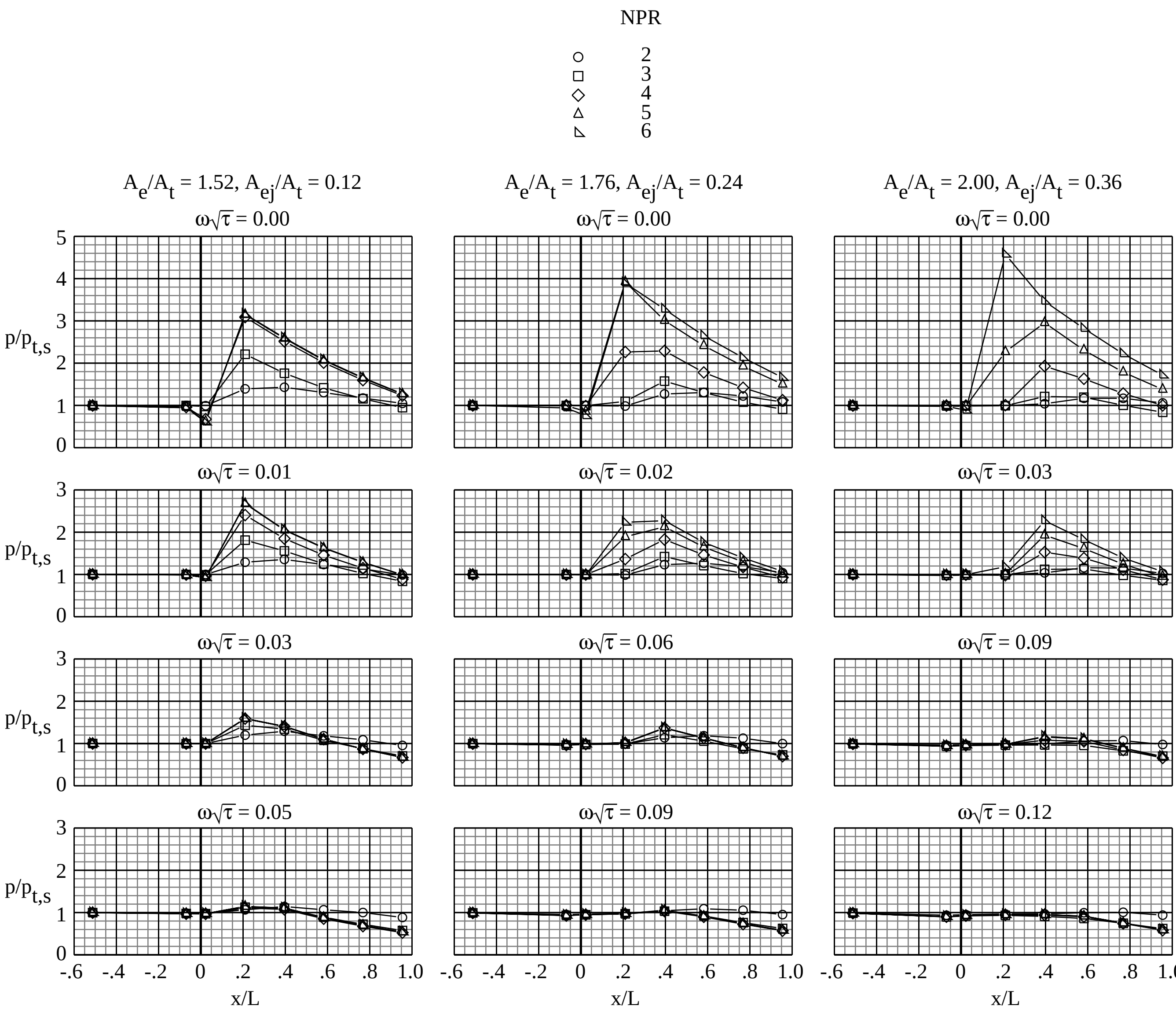
(b) AB power.

Figure 17. Concluded.



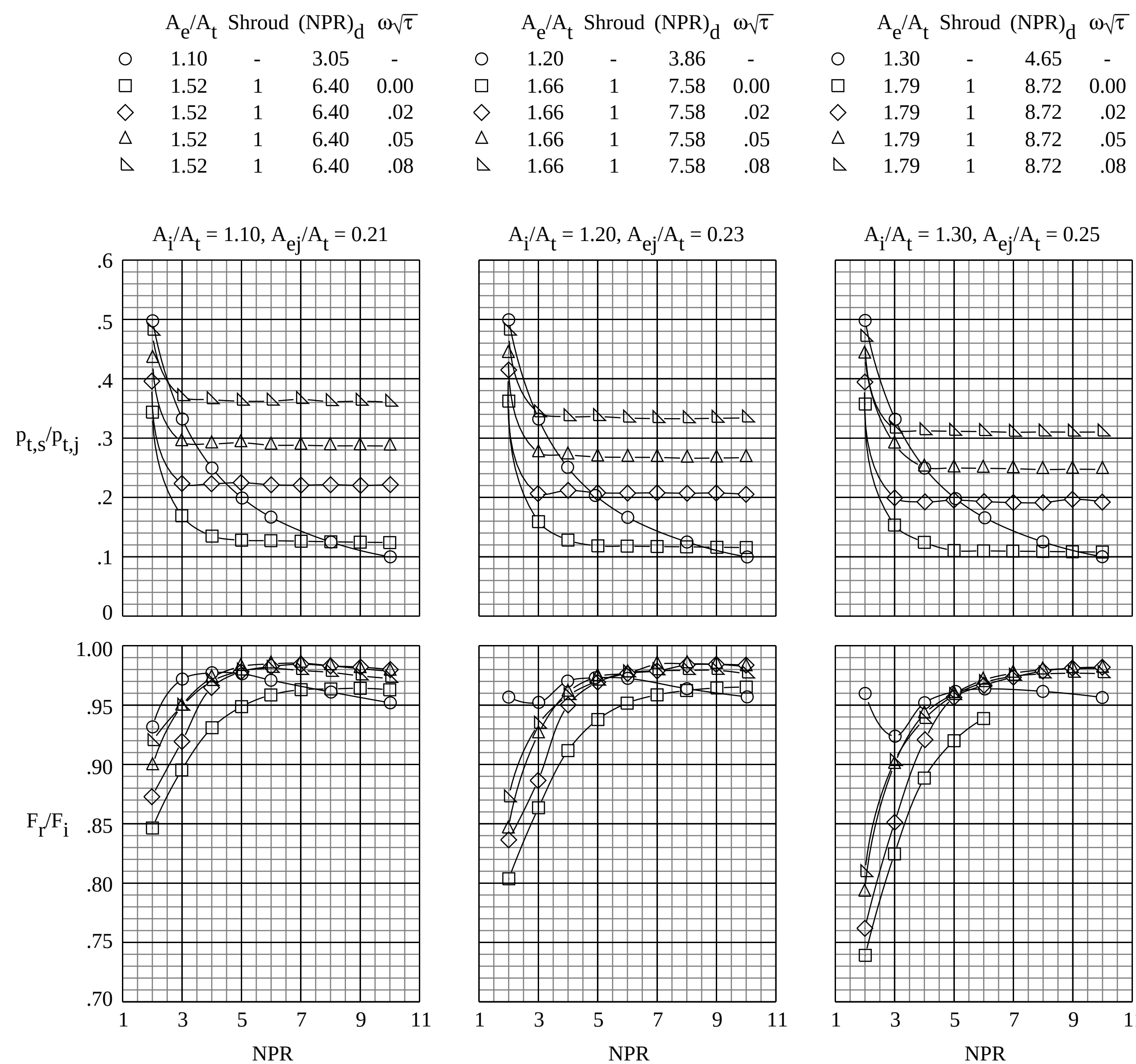
(a) Dry power.

Figure 18. Potential cooling effect of secondary flow on vectored ejector nozzles with $h_u/h_l = 1.00$.



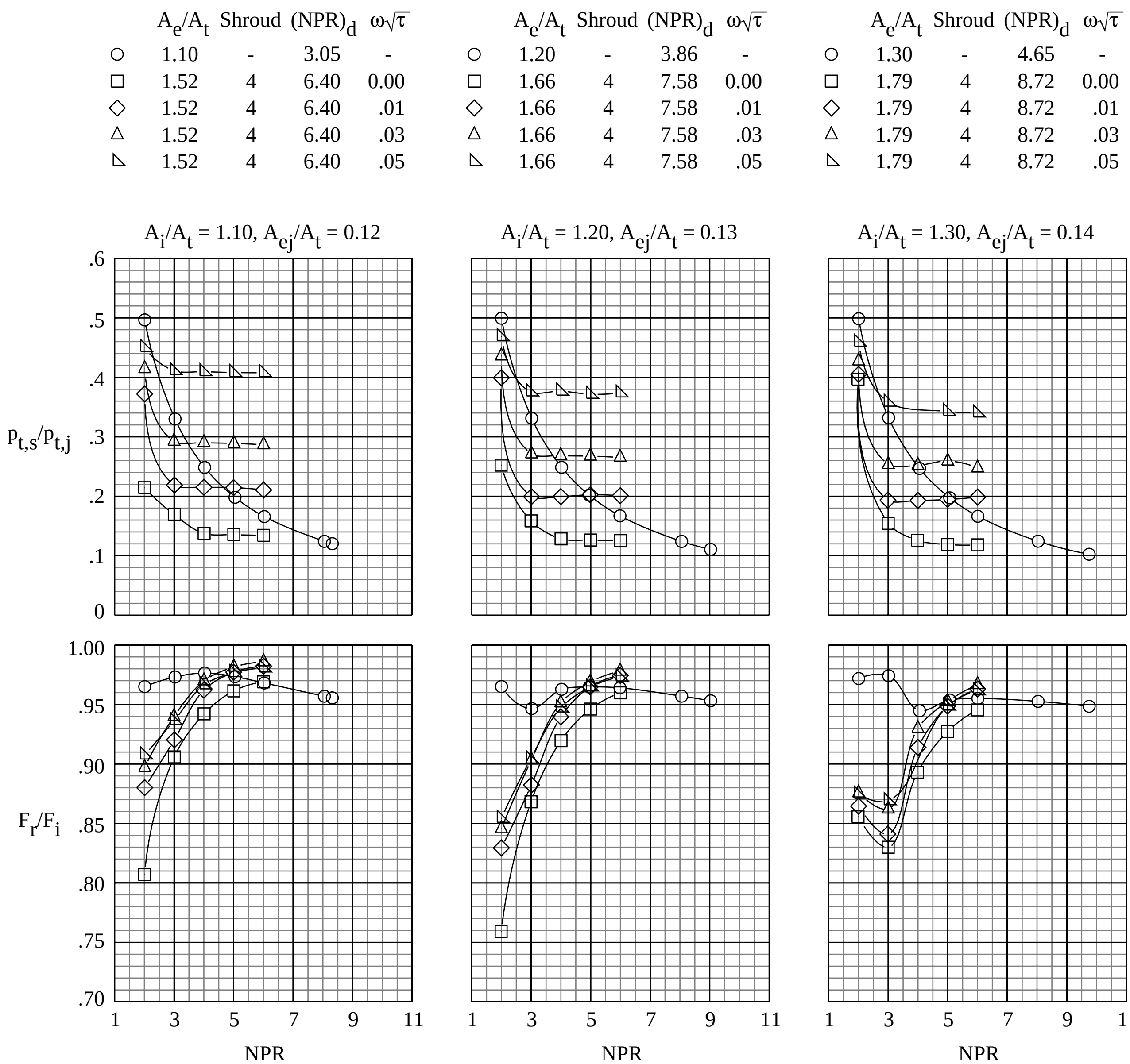
(b) AB power.

Figure 18. Concluded.



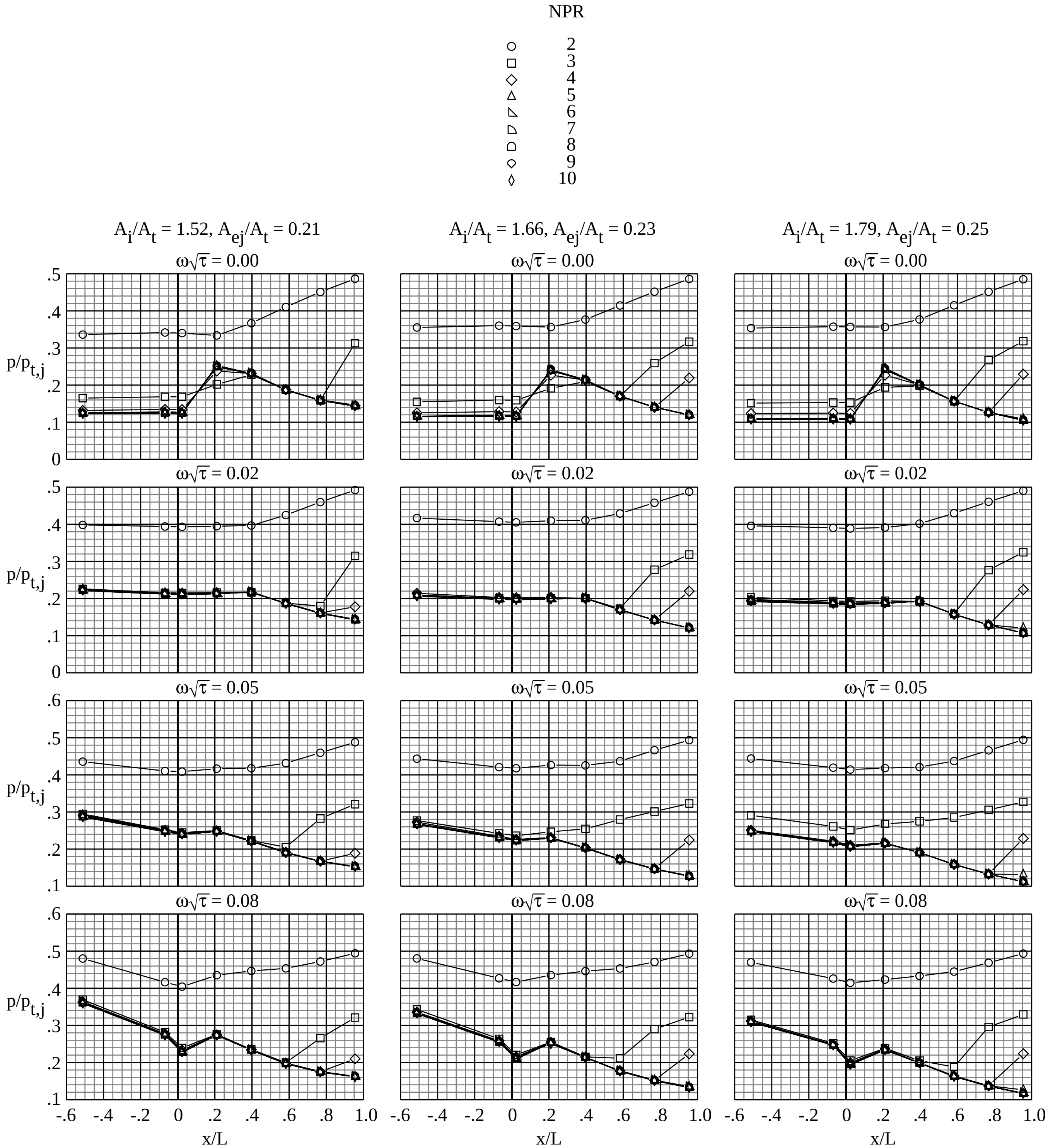
(a) Dry power.

Figure 19. Effect of primary nozzle expansion ratio (A_i/A_t) and secondary flow on performance and pumping characteristics of unvectored ejector nozzles.



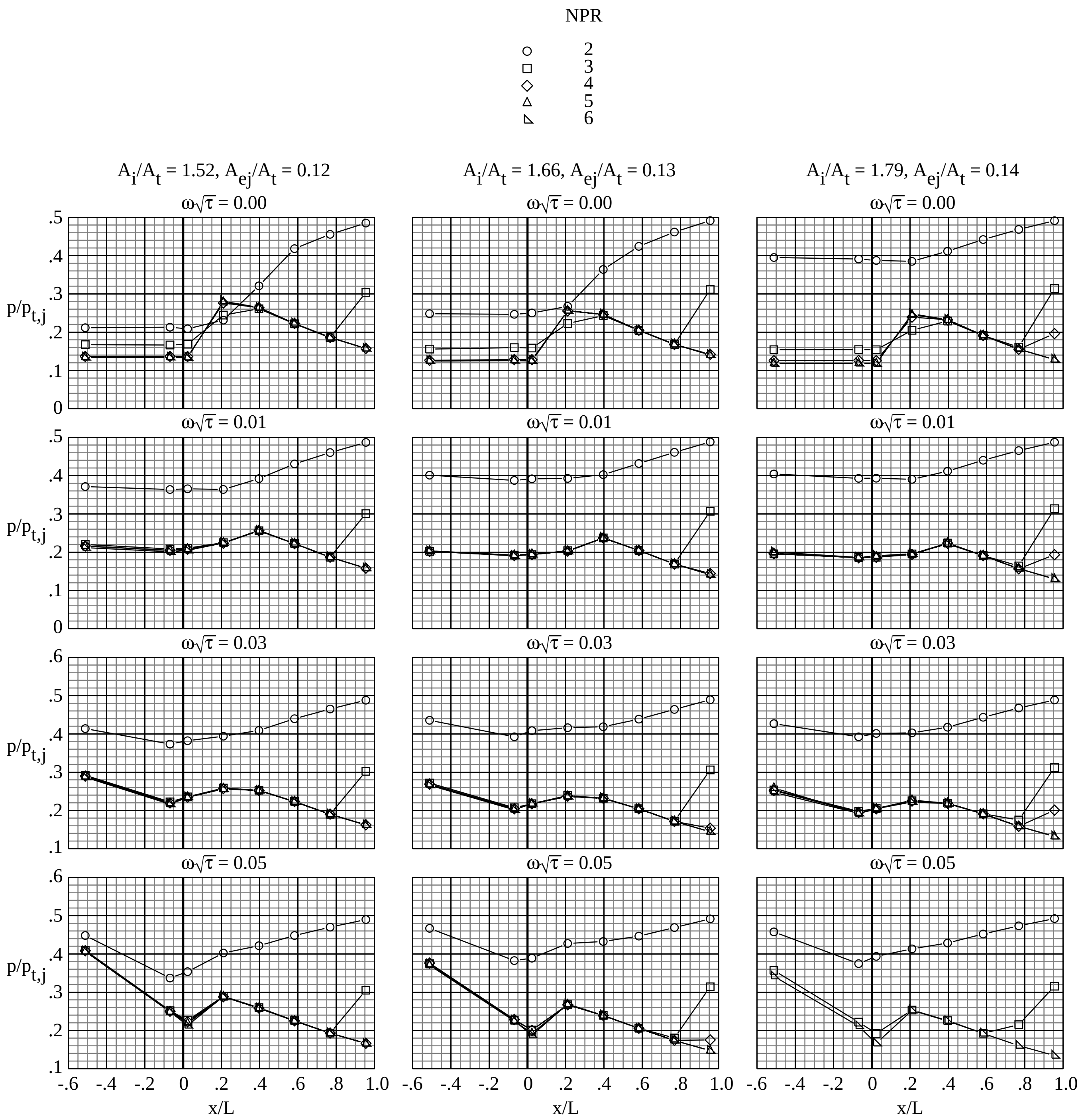
(b) AB power.

Figure 19. Concluded.



(a) Dry power.

Figure 20. Effect of primary nozzle expansion ratio (A_i/A_t) and secondary flow on shroud top-centerline static pressure distributions of unvectored ejector nozzles.



(b) AB power.

Figure 20. Concluded.

Appendix

Experimental Test Data

The primary nozzle pressure ratio (NPR), the secondary nozzle pressure ratio (SNPR), the force ratios (F_N/F_i, F_S/F_i, and F/F_i), the gross thrust ratio (F_r/F_i), the discharge coefficient (w_p/w_i) of the primary nozzle, the pumping or secondary-to-primary total-pressure ratio ($p_{t,s}/p_{t,j}$), and the thrust vector angle (δ_p) are presented in tables A4–A31 for all 28 configurations. The shroud static pressure ratios ($p/p_{t,j}$) are presented in tables A32–A59. In addition, to help better understand the potential cooling effect of the secondary flow, the shroud static pressure ratios are also presented as $p/p_{t,s}$ in tables A60–A87.

Table A1. Model Design Parameters

Config.	A_t, in^2	A_e, in^2	A_i, in^2	A_e/A_t	A_i/A_t	A_e/A_i	A_{ej}/A_t	h_u/h_l	δ, deg
1	3.500	5.313	3.850	1.52	1.10	1.38	0.21	1.00	0
2	↓	↓	↓	↓	↓	↓	↓	1.00	18
3	↓	↓	↓	↓	↓	↓	↓	1.47	18
4	↓	↓	↓	↓	↓	↓	↓	1.99	18
5	3.500	6.762	3.850	1.76	1.10	1.60	0.42	1.00	0
6	↓	↓	↓	↓	↓	↓	↓	1.00	18
7	↓	↓	↓	↓	↓	↓	↓	1.95	18
8	↓	↓	↓	↓	↓	↓	↓	2.96	18
9	3.500	7.007	3.850	2.00	1.10	1.82	0.62	1.00	0
10	↓	↓	↓	↓	↓	↓	↓	1.00	18
11	↓	↓	↓	↓	↓	↓	↓	2.50	18
12	↓	↓	↓	↓	↓	↓	↓	4.04	18
13	6.000	9.106	6.601	1.52	1.10	1.38	0.12	1.00	0
14	↓	↓	↓	↓	↓	↓	↓	1.00	18
15	↓	↓	↓	↓	↓	↓	↓	1.51	18
16	↓	↓	↓	↓	↓	↓	↓	2.06	18
17	6.000	10.561	6.601	1.76	1.10	1.60	0.24	1.00	0
18	↓	↓	↓	↓	↓	↓	↓	1.00	18
19	↓	↓	↓	↓	↓	↓	↓	2.12	18
20	↓	↓	↓	↓	↓	↓	↓	3.32	18
21	6.000	12.013	6.601	2.00	1.10	1.82	0.36	1.00	0
22	↓	↓	↓	↓	↓	↓	↓	1.00	18
23	↓	↓	↓	↓	↓	↓	↓	2.66	18
24	↓	↓	↓	↓	↓	↓	↓	4.59	18
25	3.208	5.313	3.850	1.66	1.20	1.38	0.23	1.00	0
26	2.962	5.313	3.850	1.79	1.30	1.38	0.25	1.00	0
27	5.499	9.106	6.601	1.66	1.20	1.82	0.13	1.00	0
28	5.079	9.106	6.601	1.79	1.30	1.82	0.14	1.00	0

Table A2. Matrix of Model Parts

Config.	Outer cylinder	Primary nozzle	Shroud	δ, deg	A_t, in^2
1	1	1	1	0	3.500
2	↓	7	7	18	↓
3	↓	7	7	18	↓
4	↓	7	7	18	↓
5	1	1	2	0	3.500
6	↓	7	8	18	↓
7	↓	7	8	18	↓
8	↓	7	8	18	↓
9	1	1	3	0	3.500
10	↓	7	9	18	↓
11	↓	7	9	18	↓
12	↓	7	9	18	↓
13	1	2	4	0	6.000
14	↓	8	10	18	↓
15	↓	8	10	18	↓
16	↓	8	10	18	↓
17	1	2	5	0	6.000
18	↓	8	11	18	↓
19	↓	8	11	18	↓
20	↓	8	11	18	↓
21	1	2	6	0	6.000
22	↓	8	12	18	↓
23	↓	8	12	18	↓
24	↓	8	12	18	↓
25	1	3	1	0	3.208
26	1	4	1	0	2.962
27	1	5	4	0	5.499
28	1	6	4	0	5.079

Table A3. Ejector Nozzle Parameters

Config.	h_u, in.	h_l, in.	h_u/h_l	d_t, in.	d_i, in.	d_e, in.	d_1, in.	d_s, in.	δ, deg
1	0.0960	0.0960	1.00	2.111	2.214	2.601	2.339	2.531	0
2	.0960	.0960	1.00	↓	↓	↓	↓	↓	18
3	.1143	.0777	1.47	↓	↓	↓	↓	↓	18
4	.1277	.0643	1.99	↓	↓	↓	↓	↓	18
5	0.1850	0.1850	1.00	2.111	2.214	2.801	2.339	2.709	0
6	.1850	.1850	1.00	↓	↓	↓	↓	↓	18
7	.2446	.1254	1.95	↓	↓	↓	↓	↓	18
8	.2766	.0934	2.96	↓	↓	↓	↓	↓	18
9	0.2670	0.2670	1.00	2.111	2.214	2.987	2.339	2.873	0
10	.2670	.2670	1.00	↓	↓	↓	↓	↓	18
11	.3815	.1525	2.50	↓	↓	↓	↓	↓	18
12	.4280	.1060	4.04	↓	↓	↓	↓	↓	18
13	0.0720	0.0720	1.00	2.764	2.899	3.405	3.024	3.168	0
14	.0720	.0720	1.00	↓	↓	↓	↓	↓	18
15	.0866	.0574	1.51	↓	↓	↓	↓	↓	18
16	.0969	.0471	2.06	↓	↓	↓	↓	↓	18
17	0.1440	0.1440	1.00	2.764	2.899	3.667	3.024	3.312	0
18	.1440	.1440	1.00	↓	↓	↓	↓	↓	18
19	.1956	.0924	2.12	↓	↓	↓	↓	↓	18
20	.2213	.0667	3.32	↓	↓	↓	↓	↓	18
21	0.2125	0.2125	1.00	2.764	2.899	3.911	3.024	3.449	0
22	.2125	.2125	1.00	↓	↓	↓	↓	↓	18
23	.3089	.1161	2.66	↓	↓	↓	↓	↓	18
24	.3490	.0760	4.59	↓	↓	↓	↓	↓	18
25	0.0960	0.0960	1.00	2.021	2.214	2.601	2.339	2.531	0
26	.0960	.0960	1.00	1.942	2.214	2.601	2.339	2.531	0
27	0.0720	0.0720	1.00	2.646	2.899	3.405	3.024	3.168	0
28	.0720	.0720	1.00	2.543	2.899	3.405	3.024	3.168	0

Table A4. Internal Performance Characteristics of Configuration 1

[Dry power; A_t = 3.50 in^2; A_e/A_t = 1.52; A_{ej}/A_t = 0.21; δ = 0°; h_u/h_l = 1.00]

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau}$ = 0.00				
2.003	0.688	-0.0493	0.0067	0.8450	0.8465	0.9267	0.3437	-3.341
2.989	0.505	-0.0395	0.0033	0.8945	0.8953	0.9242	0.1691	-2.529
4.011	0.541	-0.0306	0.0024	0.9304	0.9309	0.9243	0.1348	-1.881
5.003	0.640	-0.0274	0.0018	0.9483	0.9487	0.9237	0.1279	-1.654
5.991	0.761	-0.0256	0.0022	0.9582	0.9586	0.9234	0.1271	-1.533
7.010	0.885	-0.0226	0.0023	0.9627	0.9630	0.9226	0.1262	-1.346
8.009	1.003	-0.0228	0.0019	0.9633	0.9636	0.9230	0.1252	-1.353
9.000	1.121	-0.0206	0.0017	0.9640	0.9642	0.9219	0.1246	-1.223
9.994	1.239	-0.0199	0.0018	0.9627	0.9629	0.9221	0.1239	-1.184
				$\omega\sqrt{\tau}$ = 0.02				
1.981	0.785	-0.0002	0.0066	0.8728	0.8728	0.9258	0.3959	-0.013
2.996	0.670	-0.0099	0.0083	0.9193	0.9194	0.9236	0.2235	-0.619
3.992	0.890	-0.0139	0.0050	0.9647	0.9648	0.9232	0.2230	-0.826
4.988	1.122	-0.0129	0.0035	0.9780	0.9781	0.9229	0.2249	-0.755
6.002	1.328	-0.0138	0.0036	0.9824	0.9825	0.9229	0.2213	-0.804
7.006	1.546	-0.0141	0.0029	0.9844	0.9845	0.9222	0.2206	-0.818
8.001	1.772	-0.0130	0.0025	0.9829	0.9830	0.9222	0.2214	-0.757
9.013	1.985	-0.0139	0.0025	0.9819	0.9820	0.9217	0.2203	-0.812
10.013	2.218	-0.0137	0.0021	0.9798	0.9799	0.9213	0.2216	-0.800
				$\omega\sqrt{\tau}$ = 0.05				
2.007	0.871	0.0002	0.0103	0.8988	0.8989	0.9258	0.4342	0.012
2.983	0.877	0.0255	0.0173	0.9486	0.9491	0.9235	0.2939	1.540
3.996	1.160	-0.0070	0.0053	0.9729	0.9730	0.9235	0.2902	-0.411
4.978	1.454	-0.0077	0.0037	0.9824	0.9825	0.9229	0.2922	-0.450
5.995	1.727	-0.0092	0.0029	0.9847	0.9847	0.9232	0.2880	-0.536
7.001	2.015	-0.0087	0.0030	0.9853	0.9854	0.9221	0.2879	-0.506
7.989	2.293	-0.0094	0.0030	0.9832	0.9832	0.9222	0.2870	-0.546
8.994	2.581	-0.0098	0.0026	0.9807	0.9807	0.9218	0.2870	-0.573
10.005	2.867	-0.0099	0.0027	0.9785	0.9785	0.9213	0.2866	-0.579
				$\omega\sqrt{\tau}$ = 0.08				
1.989	0.955	0.0024	0.0107	0.9192	0.9193	0.9261	0.4801	0.149
2.992	1.107	0.0248	0.0170	0.9486	0.9491	0.9225	0.3699	1.495
3.983	1.452	-0.0005	0.0054	0.9699	0.9699	0.9234	0.3647	-0.027
4.998	1.810	-0.0048	0.0033	0.9787	0.9787	0.9229	0.3622	-0.278
6.004	2.175	-0.0052	0.0026	0.9809	0.9809	0.9227	0.3623	-0.306
6.993	2.553	-0.0066	0.0020	0.9792	0.9792	0.9221	0.3651	-0.386
7.994	2.890	-0.0064	0.0022	0.9776	0.9776	0.9224	0.3615	-0.375
9.000	3.259	-0.0079	0.0019	0.9746	0.9746	0.9220	0.3621	-0.467
9.996	3.604	-0.0074	0.0020	0.9725	0.9725	0.9214	0.3605	-0.438

Table A5. Internal Performance Characteristics of Configuration 2

[Dry power; A_t = 3.50 in^2; A_e/A_t = 1.52; A_{ej}/A_t = 0.21; δ = 18°; h_u/h_l = 1.00]

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau}$ = 0.00				
1.995	0.811	0.2567	0.0024	0.8323	0.8710	0.8833	0.4066	17.141
2.980	0.591	0.2746	0.0068	0.8427	0.8863	0.9005	0.1984	18.046
4.001	0.598	0.3371	0.0061	0.8526	0.9168	0.9006	0.1496	21.574
4.998	0.749	0.3175	0.0048	0.8807	0.9362	0.9003	0.1498	19.823
5.997	0.900	0.3051	0.0047	0.8960	0.9465	0.8999	0.1501	18.802
6.996	1.049	0.2990	0.0048	0.9031	0.9513	0.8996	0.1500	18.318
7.994	1.205	0.2920	0.0047	0.9064	0.9523	0.9000	0.1507	17.859
8.998	1.367	0.2886	0.0048	0.9086	0.9533	0.8996	0.1519	17.621
10.007	1.518	0.2846	0.0047	0.9093	0.9528	0.8994	0.1517	17.378
				$\omega\sqrt{\tau}$ = 0.02				
1.989	0.862	0.3168	0.0066	0.8506	0.9077	0.8808	0.4334	20.429
3.002	0.661	0.3510	0.0121	0.8349	0.9058	0.8994	0.2202	22.804
4.005	0.835	0.3546	0.0087	0.8764	0.9455	0.8996	0.2085	22.028
5.011	1.133	0.3334	0.0087	0.9050	0.9645	0.8990	0.2262	20.226
6.007	1.342	0.3185	0.0070	0.9139	0.9679	0.8995	0.2233	19.212
6.989	1.561	0.3074	0.0073	0.9169	0.9671	0.8987	0.2233	18.533
7.998	1.766	0.3012	0.0068	0.9191	0.9672	0.8989	0.2209	18.142
9.002	2.010	0.2921	0.0065	0.9183	0.9636	0.8989	0.2233	17.645
10.017	2.269	0.2872	0.0063	0.9192	0.9630	0.8986	0.2265	17.352
				$\omega\sqrt{\tau}$ = 0.05				
1.982	0.947	0.3155	0.0065	0.8804	0.9352	0.8829	0.4778	19.718
3.001	0.941	0.3027	0.0108	0.8946	0.9445	0.8997	0.3137	18.694
4.003	1.253	0.3436	0.0084	0.9016	0.9649	0.8993	0.3130	20.860
4.974	1.574	0.3240	0.0075	0.9176	0.9732	0.8985	0.3165	19.450
5.986	1.833	0.3110	0.0077	0.9245	0.9754	0.8996	0.3062	18.595
7.000	2.205	0.2962	0.0070	0.9271	0.9733	0.8984	0.3151	17.719
7.997	2.493	0.2893	0.0064	0.9279	0.9720	0.8991	0.3117	17.318
8.999	2.792	0.2816	0.0061	0.9263	0.9682	0.8987	0.3102	16.910
10.006	3.100	0.2761	0.0053	0.9247	0.9650	0.8986	0.3098	16.622
				$\omega\sqrt{\tau}$ = 0.08				
1.991	0.998	0.3125	0.0066	0.8931	0.9463	0.8862	0.5012	19.286
3.000	1.186	0.3215	0.0049	0.8913	0.9475	0.8993	0.3952	19.834
4.003	1.588	0.3239	0.0077	0.9121	0.9679	0.8991	0.3966	19.549
4.974	1.901	0.3093	0.0078	0.9240	0.9744	0.8990	0.3821	18.511
6.015	2.370	0.2903	0.0069	0.9319	0.9761	0.8990	0.3940	17.300
6.994	2.744	0.2801	0.0063	0.9327	0.9739	0.8984	0.3923	16.715
7.998	3.144	0.2712	0.0059	0.9316	0.9703	0.8988	0.3932	16.230
8.999	3.510	0.2661	0.0049	0.9311	0.9684	0.8989	0.3901	15.951
9.995	3.918	0.2601	0.0047	0.9274	0.9632	0.8988	0.3919	15.670

Table A6. Internal Performance Characteristics of Configuration 3

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.47\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.019	0.799	0.2793	0.0136	0.8311	0.8769	0.8847	0.3956	18.573
3.005	0.632	0.2585	0.0123	0.8598	0.8979	0.9007	0.2104	16.735
3.993	0.642	0.3478	0.0090	0.8553	0.9234	0.9001	0.1609	22.128
5.012	0.742	0.3223	0.0067	0.8809	0.9380	0.9001	0.1481	20.097
5.991	0.891	0.3126	0.0064	0.8952	0.9482	0.8996	0.1486	19.248
6.990	1.041	0.3032	0.0061	0.9023	0.9519	0.8996	0.1490	18.572
8.013	1.191	0.2962	0.0052	0.9061	0.9533	0.8997	0.1486	18.101
9.004	1.340	0.2908	0.0050	0.9084	0.9538	0.8996	0.1488	17.753
9.977	1.490	0.2863	0.0050	0.9092	0.9532	0.8992	0.1493	17.482
				$\omega\sqrt{\tau} = 0.02$				
1.998	0.893	0.2963	0.0066	0.8665	0.9158	0.8812	0.4470	18.880
4.009	0.946	0.3606	0.0076	0.8880	0.9585	0.8999	0.2360	22.100
4.984	1.146	0.3388	0.0069	0.9035	0.9649	0.9000	0.2299	20.553
6.027	1.412	0.3229	0.0057	0.9140	0.9694	0.8998	0.2343	19.456
7.997	1.837	0.3049	0.0058	0.9195	0.9687	0.8997	0.2297	18.346
8.999	2.148	0.2985	0.0055	0.9209	0.9681	0.8996	0.2387	17.957
9.970	2.279	0.2933	0.0049	0.9195	0.9651	0.8991	0.2286	17.693
				$\omega\sqrt{\tau} = 0.05$				
1.994	0.960	0.2949	0.0061	0.8855	0.9333	0.8842	0.4815	18.420
3.000	1.017	0.2468	0.0052	0.9225	0.9550	0.9005	0.3390	14.977
3.999	1.285	0.3495	0.0074	0.9019	0.9673	0.9003	0.3214	21.181
4.992	1.609	0.3278	0.0056	0.9175	0.9743	0.8998	0.3224	19.662
5.988	1.936	0.3135	0.0060	0.9244	0.9762	0.8998	0.3233	18.735
6.990	2.236	0.3024	0.0050	0.9275	0.9756	0.8997	0.3199	18.057
8.004	2.573	0.2941	0.0053	0.9285	0.9739	0.8997	0.3215	17.577
9.003	2.909	0.2875	0.0053	0.9280	0.9715	0.8993	0.3231	17.210
10.013	3.192	0.2822	0.0051	0.9265	0.9685	0.8995	0.3188	16.940
				$\omega\sqrt{\tau} = 0.08$				
1.990	1.015	0.2997	0.0062	0.8879	0.9372	0.8858	0.5099	18.651
2.994	1.207	0.3147	0.0067	0.8939	0.9477	0.9005	0.4030	19.397
4.005	1.604	0.3286	0.0069	0.9123	0.9697	0.9002	0.4005	19.807
4.996	1.996	0.3061	0.0060	0.9257	0.9750	0.8999	0.3995	18.298
6.003	2.411	0.2919	0.0054	0.9321	0.9767	0.8999	0.4017	17.391
6.972	2.779	0.2816	0.0051	0.9336	0.9752	0.9000	0.3986	16.783
8.995	3.580	0.2678	0.0047	0.9324	0.9701	0.8997	0.3981	16.024
10.001	4.021	0.2622	0.0051	0.9307	0.9669	0.8992	0.4021	15.735

Table A7. Internal Performance Characteristics of Configuration 4

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.99\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.999	0.802	0.2791	0.0183	0.8292	0.8751	0.8829	0.4013	18.600
3.001	0.599	0.2477	0.0127	0.8531	0.8884	0.9008	0.1996	16.191
4.004	0.595	0.3441	0.0126	0.8500	0.9171	0.9006	0.1486	22.038
5.003	0.744	0.3238	0.0096	0.8792	0.9370	0.9003	0.1486	20.220
5.993	0.893	0.3132	0.0078	0.8940	0.9473	0.8999	0.1490	19.305
7.004	1.044	0.3045	0.0078	0.9015	0.9516	0.8997	0.1490	18.666
7.995	1.189	0.2975	0.0069	0.9054	0.9531	0.8996	0.1487	18.189
8.996	1.338	0.2916	0.0065	0.9077	0.9534	0.8997	0.1487	17.813
10.001	1.490	0.2879	0.0059	0.9084	0.9530	0.8990	0.1490	17.586
				$\omega\sqrt{\tau} = 0.02$				
2.001	0.897	0.3061	0.0031	0.8631	0.9158	0.8824	0.4484	19.529
2.990	0.854	0.2589	0.0059	0.9042	0.9405	0.8994	0.2857	15.977
3.995	0.932	0.3665	0.0083	0.8836	0.9566	0.9003	0.2332	22.527
4.996	1.160	0.3433	0.0063	0.9026	0.9657	0.9002	0.2321	20.823
6.006	1.401	0.3286	0.0069	0.9124	0.9698	0.8999	0.2332	19.810
6.999	1.646	0.3165	0.0073	0.9179	0.9710	0.8994	0.2352	19.025
7.999	1.857	0.3093	0.0064	0.9186	0.9693	0.8996	0.2321	18.607
9.006	2.099	0.3026	0.0061	0.9201	0.9686	0.8992	0.2330	18.207
10.004	2.353	0.2974	0.0054	0.9197	0.9666	0.8990	0.2352	17.917
				$\omega\sqrt{\tau} = 0.05$				
1.995	0.953	0.2987	0.0029	0.8826	0.9318	0.8841	0.4775	18.700
3.004	1.016	0.2524	0.0064	0.9229	0.9568	0.9003	0.3382	15.294
3.998	1.300	0.3537	0.0065	0.9000	0.9670	0.9002	0.3253	21.456
5.001	1.625	0.3306	0.0060	0.9162	0.9741	0.8999	0.3249	19.839
6.013	1.941	0.3168	0.0055	0.9239	0.9768	0.8999	0.3227	18.928
7.003	2.284	0.3037	0.0053	0.9276	0.9761	0.8995	0.3262	18.128
8.017	2.596	0.2958	0.0052	0.9279	0.9739	0.8996	0.3238	17.682
9.006	2.902	0.2915	0.0052	0.9278	0.9725	0.8993	0.3223	17.441
9.995	3.241	0.2857	0.0051	0.9265	0.9696	0.8992	0.3242	17.138
				$\omega\sqrt{\tau} = 0.08$				
1.992	1.015	0.2958	0.0032	0.8868	0.9349	0.8860	0.5095	18.446
3.007	1.221	0.3185	-0.0011	0.8932	0.9482	0.9005	0.4061	19.626
3.995	1.615	0.3306	0.0057	0.9108	0.9690	0.9005	0.4042	19.947
4.995	2.011	0.3070	0.0054	0.9261	0.9757	0.9002	0.4026	18.342
6.000	2.413	0.2947	0.0041	0.9314	0.9769	0.8998	0.4021	17.559
7.000	2.808	0.2838	0.0041	0.9331	0.9753	0.8996	0.4011	16.916
7.993	3.202	0.2769	0.0040	0.9327	0.9730	0.8997	0.4006	16.532
9.001	3.637	0.2696	0.0045	0.9319	0.9701	0.8994	0.4041	16.136
10.012	4.021	0.2653	0.0044	0.9300	0.9671	0.8987	0.4016	15.924

Table A8. Internal Performance Characteristics of Configuration 5

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.997	0.794	-0.0179	0.0152	0.8396	0.8400	0.9253	0.3975	-1.220
3.003	0.440	-0.0259	0.0064	0.8364	0.8368	0.9243	0.1466	-1.775
4.011	0.499	-0.0216	0.0044	0.8963	0.8966	0.9237	0.1244	-1.383
4.998	0.532	-0.0208	0.0043	0.9201	0.9204	0.9234	0.1065	-1.297
5.995	0.589	-0.0200	0.0035	0.9348	0.9350	0.9229	0.0982	-1.226
6.997	0.683	-0.0193	0.0036	0.9446	0.9448	0.9223	0.0976	-1.168
8.016	0.777	-0.0187	0.0023	0.9503	0.9505	0.9228	0.0970	-1.128
8.997	0.869	-0.0189	0.0025	0.9537	0.9539	0.9220	0.0966	-1.135
10.001	0.962	-0.0183	0.0021	0.9550	0.9552	0.9222	0.0962	-1.096
				$\omega\sqrt{\tau} = 0.04$				
1.996	0.876	-0.0101	0.0079	0.8809	0.8810	0.9267	0.4387	-0.659
3.002	0.863	-0.0070	0.0049	0.9437	0.9437	0.9240	0.2875	-0.424
4.003	0.825	-0.0082	0.0064	0.9479	0.9480	0.9236	0.2061	-0.497
5.002	1.039	-0.0107	0.0035	0.9735	0.9736	0.9231	0.2077	-0.631
5.979	1.227	-0.0118	0.0026	0.9795	0.9796	0.9231	0.2052	-0.688
6.993	1.432	-0.0121	0.0028	0.9842	0.9843	0.9224	0.2047	-0.703
8.030	1.652	-0.0133	0.0024	0.9863	0.9864	0.9226	0.2057	-0.773
8.993	1.833	-0.0131	0.0025	0.9861	0.9862	0.9218	0.2038	-0.763
10.000	2.037	-0.0129	0.0020	0.9851	0.9852	0.9216	0.2037	-0.748
				$\omega\sqrt{\tau} = 0.10$				
2.005	0.963	-0.0018	0.0040	0.9274	0.9274	0.9268	0.4805	-0.114
2.999	0.998	-0.0015	0.0050	0.9837	0.9837	0.9235	0.3327	-0.085
3.994	1.132	0.0071	0.0089	0.9718	0.9718	0.9240	0.2834	0.417
5.012	1.418	-0.0047	0.0044	0.9806	0.9806	0.9232	0.2828	-0.276
5.994	1.693	-0.0068	0.0026	0.9858	0.9858	0.9227	0.2825	-0.394
7.017	1.974	-0.0090	0.0027	0.9870	0.9870	0.9226	0.2813	-0.522
8.018	2.259	-0.0082	0.0022	0.9862	0.9863	0.9224	0.2817	-0.474
9.012	2.541	-0.0085	0.0029	0.9850	0.9851	0.9218	0.2819	-0.494
9.999	2.819	-0.0094	0.0024	0.9831	0.9832	0.9217	0.2819	-0.549
				$\omega\sqrt{\tau} = 0.16$				
2.007	1.024	0.0067	0.0043	0.9348	0.9349	0.9266	0.5101	0.412
3.001	1.122	0.0078	0.0073	0.9605	0.9605	0.9244	0.3740	0.465
3.996	1.466	-0.0028	0.0044	0.9710	0.9710	0.9238	0.3668	-0.164
5.007	1.830	-0.0039	0.0030	0.9800	0.9800	0.9229	0.3654	-0.227
6.006	2.198	-0.0055	0.0023	0.9827	0.9827	0.9228	0.3659	-0.323
7.011	2.562	-0.0063	0.0025	0.9826	0.9826	0.9224	0.3654	-0.365
7.991	2.925	-0.0058	0.0020	0.9809	0.9809	0.9223	0.3660	-0.339
9.011	3.300	-0.0054	0.0022	0.9784	0.9784	0.9218	0.3663	-0.315
9.991	3.666	-0.0064	0.0019	0.9758	0.9758	0.9217	0.3670	-0.378

Table A9. Internal Performance Characteristics of Configuration 6

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.003	0.869	0.2646	0.0029	0.8428	0.8833	0.8784	0.4339	17.433
2.995	0.747	0.2094	0.0049	0.8777	0.9023	0.8982	0.2493	13.422
4.004	0.490	0.3991	0.0059	0.7932	0.8880	0.9003	0.1225	26.708
5.012	0.586	0.3747	0.0060	0.8356	0.9158	0.8998	0.1169	24.154
6.005	0.703	0.3618	0.0042	0.8587	0.9318	0.8997	0.1170	22.845
6.998	0.822	0.3526	0.0050	0.8723	0.9408	0.8995	0.1174	22.009
7.993	0.943	0.3443	0.0047	0.8805	0.9455	0.8994	0.1179	21.358
9.008	1.061	0.3378	0.0046	0.8857	0.9480	0.8998	0.1178	20.875
10.004	1.177	0.3316	0.0048	0.8892	0.9490	0.8992	0.1176	20.454
				$\omega\sqrt{\tau} = 0.04$				
2.005	0.946	0.2829	0.0023	0.8909	0.9347	0.8765	0.4717	17.615
2.997	0.912	0.2755	0.0041	0.9053	0.9463	0.8974	0.3044	16.927
4.001	0.858	0.3124	0.0017	0.8868	0.9402	0.9000	0.2145	19.405
4.999	1.056	0.3539	0.0023	0.8929	0.9605	0.9001	0.2112	21.624
5.999	1.249	0.3561	0.0044	0.8997	0.9676	0.8997	0.2082	21.596
7.005	1.461	0.3467	0.0053	0.9058	0.9699	0.8991	0.2086	20.944
7.995	1.677	0.3385	0.0046	0.9118	0.9726	0.8992	0.2098	20.368
8.998	1.881	0.3322	0.0047	0.9148	0.9733	0.8993	0.2090	19.956
10.007	2.096	0.3243	0.0047	0.9165	0.9722	0.8989	0.2095	19.486
				$\omega\sqrt{\tau} = 0.10$				
1.990	1.001	0.2805	0.0021	0.9143	0.9564	0.8813	0.5030	17.056
2.993	1.054	0.2681	0.0036	0.9230	0.9611	0.8991	0.3521	16.196
4.002	1.212	0.3102	-0.0002	0.9097	0.9612	0.8998	0.3029	18.830
4.996	1.511	0.3369	0.0045	0.9136	0.9737	0.9003	0.3025	20.245
6.004	1.826	0.3275	0.0037	0.9218	0.9783	0.8994	0.3041	19.559
7.007	2.111	0.3180	0.0038	0.9260	0.9791	0.8989	0.3013	18.954
7.992	2.407	0.3088	0.0036	0.9287	0.9787	0.8999	0.3012	18.391
9.003	2.714	0.3028	0.0031	0.9297	0.9778	0.8992	0.3014	18.041
10.004	3.014	0.2967	0.0036	0.9298	0.9760	0.8991	0.3013	17.698
				$\omega\sqrt{\tau} = 0.16$				
2.004	1.066	0.2717	0.0023	0.9073	0.9471	0.8852	0.5322	16.672
2.990	1.175	0.2544	0.0049	0.9166	0.9512	0.8999	0.3930	15.513
4.001	1.566	0.3334	0.0037	0.9076	0.9669	0.9002	0.3914	20.169
4.999	1.952	0.3214	0.0018	0.9219	0.9763	0.9001	0.3904	19.223
6.003	2.346	0.3067	0.0038	0.9303	0.9795	0.8997	0.3908	18.244
7.008	2.734	0.2965	0.0029	0.9320	0.9780	0.8988	0.3902	17.649
7.997	3.119	0.2890	0.0023	0.9328	0.9765	0.8995	0.3900	17.215
9.004	3.506	0.2830	0.0019	0.9327	0.9747	0.8995	0.3893	16.880
10.008	3.898	0.2766	0.0016	0.9311	0.9714	0.8989	0.3895	16.546

Table A10. Internal Performance Characteristics of Configuration 7

[Dry power; A_t = 3.50 in^2; A_e/A_t = 1.76; A_{ej}/A_t = 0.42; δ = 18°; h_u/h_l = 1.95]

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau}$ = 0.00				
2.001	0.847	0.2261	0.0116	0.8407	0.8706	0.8764	0.4235	15.055
2.990	0.651	0.1752	0.0097	0.8630	0.8807	0.8982	0.2176	11.473
4.005	0.505	0.3601	0.0072	0.8048	0.8817	0.9003	0.1260	24.107
4.993	0.575	0.3528	0.0072	0.8376	0.9089	0.9002	0.1151	22.842
6.004	0.693	0.3414	0.0069	0.8607	0.9260	0.8999	0.1154	21.637
7.018	0.812	0.3327	0.0061	0.8747	0.9359	0.8995	0.1157	20.824
7.991	0.931	0.3266	0.0059	0.8833	0.9417	0.8993	0.1165	20.292
9.005	1.051	0.3212	0.0058	0.8885	0.9448	0.8994	0.1167	19.875
9.996	1.166	0.3156	0.0057	0.8922	0.9464	0.8994	0.1166	19.478
				$\omega\sqrt{\tau}$ = 0.04				
2.002	0.919	0.2462	0.0073	0.8780	0.9119	0.8738	0.4588	15.667
2.998	0.906	0.2332	0.0061	0.9148	0.9441	0.8968	0.3023	14.303
3.992	0.887	0.3296	0.0041	0.8827	0.9422	0.9002	0.2221	20.475
6.004	1.326	0.3279	0.0053	0.9134	0.9705	0.8991	0.2209	19.745
6.993	1.547	0.3173	0.0047	0.9214	0.9745	0.8999	0.2213	19.004
8.002	1.773	0.3105	0.0044	0.9254	0.9761	0.8993	0.2216	18.549
9.009	2.012	0.3026	0.0044	0.9285	0.9765	0.8996	0.2233	18.049
10.003	2.223	0.2970	0.0048	0.9298	0.9761	0.8994	0.2223	17.713
				$\omega\sqrt{\tau}$ = 0.10				
1.996	1.011	0.2407	0.0068	0.9125	0.9437	0.8785	0.5063	14.775
2.995	1.037	0.2432	0.0084	0.9249	0.9564	0.8993	0.3464	14.730
4.000	1.262	0.3282	0.0026	0.9040	0.9618	0.9000	0.3154	19.955
5.004	1.577	0.3336	0.0038	0.9161	0.9749	0.8994	0.3152	20.008
6.006	1.890	0.3194	0.0040	0.9257	0.9793	0.8994	0.3147	19.036
6.993	2.202	0.3096	0.0039	0.9307	0.9809	0.8999	0.3148	18.399
8.002	2.531	0.3014	0.0032	0.9325	0.9800	0.8997	0.3163	17.914
9.016	2.858	0.2951	0.0032	0.9335	0.9791	0.8995	0.3170	17.543
10.004	3.166	0.2891	0.0032	0.9335	0.9773	0.8991	0.3165	17.209
				$\omega\sqrt{\tau}$ = 0.16				
1.988	1.074	0.2504	0.0071	0.9048	0.9388	0.8809	0.5404	15.469
2.999	1.225	0.3086	0.0051	0.8918	0.9437	0.9003	0.4084	19.089
3.998	1.626	0.3542	0.0031	0.9010	0.9681	0.8997	0.4067	21.459
5.009	2.032	0.3324	0.0025	0.9172	0.9756	0.8996	0.4057	19.921
6.000	2.435	0.3164	0.0028	0.9265	0.9791	0.8997	0.4058	18.854
6.998	2.839	0.3062	0.0022	0.9294	0.9785	0.8994	0.4057	18.235
8.005	3.247	0.2970	0.0022	0.9302	0.9765	0.8997	0.4057	17.707
9.006	3.647	0.2911	0.0019	0.9299	0.9744	0.8997	0.4050	17.383
10.006	4.060	0.2857	0.0016	0.9290	0.9720	0.8989	0.4058	17.097

Table A11. Internal Performance Characteristics of Configuration 8

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 2.96\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.999	0.845	0.1967	0.0130	0.8413	0.8641	0.8737	0.4224	13.159
3.009	0.598	0.1851	0.0099	0.8438	0.8639	0.8967	0.1987	12.370
4.012	0.510	0.3316	0.0117	0.8122	0.8773	0.9002	0.1272	22.208
4.999	0.576	0.3361	0.0092	0.8418	0.9065	0.9004	0.1153	21.766
5.993	0.692	0.3274	0.0083	0.8640	0.9240	0.8999	0.1155	20.754
7.026	0.811	0.3186	0.0090	0.8780	0.9341	0.8994	0.1154	19.946
8.012	0.927	0.3123	0.0082	0.8867	0.9401	0.8997	0.1158	19.403
9.005	1.045	0.3072	0.0081	0.8922	0.9436	0.8996	0.1160	19.002
9.998	1.164	0.3023	0.0081	0.8961	0.9457	0.8992	0.1164	18.641
				$\omega\sqrt{\tau} = 0.04$				
2.015	0.932	0.2069	0.0052	0.8955	0.9191	0.8716	0.4623	13.012
2.995	0.874	0.1978	0.0054	0.9159	0.9371	0.8958	0.2919	12.184
3.997	0.899	0.3226	0.0064	0.8849	0.9419	0.9002	0.2250	20.031
5.003	1.142	0.3219	0.0072	0.9065	0.9620	0.9003	0.2282	19.549
6.016	1.343	0.3142	0.0073	0.9175	0.9698	0.8999	0.2232	18.904
6.994	1.590	0.3035	0.0075	0.9261	0.9746	0.8993	0.2274	18.146
8.018	1.820	0.2961	0.0066	0.9300	0.9761	0.9002	0.2270	17.661
9.004	2.033	0.2912	0.0066	0.9331	0.9775	0.8991	0.2258	17.335
9.998	2.269	0.2847	0.0070	0.9336	0.9761	0.8997	0.2269	16.960
				$\omega\sqrt{\tau} = 0.10$				
2.004	1.017	0.2215	0.0045	0.9137	0.9402	0.8759	0.5073	13.626
2.990	1.068	0.2484	0.0094	0.9208	0.9538	0.8985	0.3570	15.099
3.998	1.280	0.3389	0.0066	0.8992	0.9610	0.9001	0.3202	20.653
4.995	1.615	0.3337	0.0064	0.9150	0.9740	0.9001	0.3233	20.038
6.009	1.932	0.3188	0.0066	0.9254	0.9788	0.9002	0.3214	19.012
7.005	2.226	0.3082	0.0065	0.9307	0.9804	0.8998	0.3178	18.323
8.014	2.584	0.3020	0.0058	0.9324	0.9801	0.9002	0.3224	17.948
9.000	2.892	0.2931	0.0058	0.9334	0.9784	0.8994	0.3213	17.433
9.997	3.214	0.2880	0.0062	0.9329	0.9763	0.8996	0.3215	17.159
				$\omega\sqrt{\tau} = 0.16$				
1.993	1.097	0.2616	0.0064	0.8970	0.9344	0.8795	0.5506	16.256
3.005	1.262	0.3062	0.0084	0.8899	0.9412	0.8999	0.4201	18.990
3.999	1.657	0.3601	0.0057	0.8973	0.9669	0.8999	0.4144	21.868
5.000	2.069	0.3337	0.0061	0.9165	0.9754	0.8998	0.4138	20.010
6.008	2.516	0.3187	0.0054	0.9247	0.9781	0.9000	0.4188	19.015
7.000	2.907	0.3078	0.0055	0.9281	0.9778	0.9001	0.4153	18.349
8.011	3.307	0.3009	0.0045	0.9286	0.9761	0.9003	0.4129	17.952
8.998	3.731	0.2932	0.0054	0.9278	0.9730	0.8997	0.4147	17.537
9.995	4.140	0.2878	0.0050	0.9271	0.9708	0.8994	0.4142	17.243

Table A12. Internal Performance Characteristics of Configuration 9

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.002	0.863	-0.0217	0.0092	0.8396	0.8399	0.9267	0.4312	-1.481
3.019	0.767	-0.0105	0.0078	0.8937	0.8938	0.9239	0.2541	-0.676
3.997	0.326	-0.0191	0.0060	0.8278	0.8281	0.9239	0.0816	-1.323
4.991	0.405	-0.0167	0.0057	0.8769	0.8771	0.9236	0.0811	-1.088
5.987	0.483	-0.0165	0.0052	0.9052	0.9054	0.9231	0.0807	-1.044
7.003	0.561	-0.0162	0.0044	0.9219	0.9220	0.9223	0.0801	-1.008
8.010	0.638	-0.0171	0.0031	0.9316	0.9317	0.9226	0.0797	-1.054
8.991	0.713	-0.0165	0.0037	0.9387	0.9389	0.9218	0.0793	-1.010
9.981	0.789	-0.0162	0.0038	0.9429	0.9430	0.9213	0.0790	-0.983
				$\omega\sqrt{\tau} = 0.06$				
1.995	0.930	-0.0005	0.0061	0.8818	0.8818	0.9261	0.4661	-0.031
2.979	0.949	-0.0011	0.0059	0.9575	0.9575	0.9239	0.3187	-0.064
4.003	0.910	-0.0038	0.0056	0.9617	0.9617	0.9237	0.2272	-0.226
4.985	0.959	-0.0066	0.0058	0.9700	0.9700	0.9231	0.1924	-0.392
5.996	1.157	-0.0073	0.0042	0.9754	0.9755	0.9230	0.1929	-0.429
6.988	1.342	-0.0108	0.0041	0.9807	0.9808	0.9222	0.1920	-0.633
8.007	1.529	-0.0100	0.0034	0.9845	0.9845	0.9223	0.1910	-0.583
8.978	1.719	-0.0100	0.0029	0.9865	0.9866	0.9215	0.1915	-0.584
10.007	1.915	-0.0101	0.0029	0.9872	0.9873	0.9216	0.1914	-0.585
				$\omega\sqrt{\tau} = 0.15$				
1.994	1.008	0.0016	0.0060	0.9255	0.9255	0.9259	0.5054	0.102
2.991	1.048	-0.0001	0.0055	0.9697	0.9697	0.9238	0.3504	-0.007
4.005	1.135	-0.0027	0.0039	0.9726	0.9726	0.9231	0.2834	-0.161
4.999	1.398	-0.0057	0.0048	0.9780	0.9781	0.9230	0.2797	-0.334
6.002	1.683	-0.0069	0.0029	0.9836	0.9836	0.9229	0.2804	-0.401
6.988	1.957	-0.0063	0.0029	0.9861	0.9861	0.9223	0.2800	-0.369
8.010	2.231	-0.0069	0.0024	0.9872	0.9872	0.9222	0.2785	-0.399
8.992	2.503	-0.0063	0.0024	0.9866	0.9866	0.9216	0.2784	-0.365
9.988	2.784	-0.0073	0.0021	0.9848	0.9848	0.9215	0.2788	-0.424
				$\omega\sqrt{\tau} = 0.21$				
3.014	1.118	0.0003	0.0033	0.9640	0.9640	0.9238	0.3709	0.018
3.997	1.426	-0.0052	0.0032	0.9626	0.9626	0.9235	0.3568	-0.309
5.005	1.787	-0.0051	0.0022	0.9752	0.9752	0.9228	0.3571	-0.298
5.996	2.158	-0.0063	0.0023	0.9796	0.9796	0.9227	0.3599	-0.371
7.004	2.488	-0.0069	0.0012	0.9819	0.9819	0.9224	0.3553	-0.404
8.006	2.865	-0.0073	0.0014	0.9815	0.9815	0.9221	0.3579	-0.425
8.983	3.216	-0.0066	0.0011	0.9802	0.9803	0.9219	0.3580	-0.384
9.999	3.581	-0.0074	0.0008	0.9783	0.9783	0.9215	0.3581	-0.434

Table A13. Internal Performance Characteristics of Configuration 10

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2;\ A_e/A_t = 2.00;\ A_{ej}/A_t = 0.62;\ \delta = 18°;\ h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.008	0.905	0.1974	0.0004	0.8470	0.8697	0.8745	0.4508	13.122
2.989	0.779	0.1630	0.0018	0.8719	0.8870	0.8976	0.2606	10.590
3.996	0.458	0.3675	0.0020	0.7572	0.8416	0.9011	0.1146	25.890
5.005	0.517	0.3881	0.0015	0.7955	0.8851	0.9008	0.1032	26.005
5.993	0.588	0.3791	0.0051	0.8248	0.9078	0.9002	0.0981	24.684
6.994	0.689	0.3709	0.0052	0.8463	0.9240	0.9004	0.0985	23.669
7.983	0.787	0.3614	0.0060	0.8584	0.9314	0.8999	0.0986	22.833
9.024	0.886	0.3529	0.0059	0.8678	0.9368	0.9002	0.0982	22.132
9.986	0.980	0.3482	0.0058	0.8742	0.9410	0.8996	0.0982	21.720
				$\omega\sqrt{\tau} = 0.06$				
1.980	0.968	0.2559	0.0079	0.9121	0.9473	0.8710	0.4887	15.675
2.991	0.952	0.2454	0.0087	0.9288	0.9607	0.8971	0.3182	14.800
4.028	0.868	0.2695	0.0066	0.8990	0.9386	0.9005	0.2154	16.689
4.985	0.992	0.3208	0.0026	0.9100	0.9649	0.8998	0.1991	19.416
5.969	1.175	0.3461	0.0052	0.9010	0.9652	0.8999	0.1969	21.012
7.005	1.381	0.3456	0.0054	0.9084	0.9719	0.8997	0.1972	20.828
7.989	1.589	0.3359	0.0053	0.9149	0.9746	0.9001	0.1989	20.159
9.023	1.792	0.3291	0.0055	0.9194	0.9765	0.8997	0.1986	19.693
10.005	1.976	0.3227	0.0054	0.9217	0.9766	0.8997	0.1975	19.295
				$\omega\sqrt{\tau} = 0.15$				
1.966	1.023	0.2471	0.0070	0.9284	0.9607	0.8758	0.5204	14.906
2.986	1.080	0.2493	0.0063	0.9364	0.9690	0.8983	0.3616	14.905
3.998	1.186	0.2709	0.0040	0.9245	0.9634	0.9001	0.2967	16.333
4.982	1.475	0.3277	0.0043	0.9179	0.9747	0.9000	0.2960	19.647
6.011	1.784	0.3216	0.0035	0.9263	0.9805	0.8999	0.2968	19.148
7.004	2.070	0.3112	0.0035	0.9321	0.9826	0.8999	0.2956	18.463
8.014	2.381	0.3020	0.0038	0.9353	0.9829	0.9001	0.2970	17.891
9.012	2.666	0.2940	0.0038	0.9371	0.9822	0.8997	0.2958	17.415
10.003	2.948	0.2887	0.0036	0.9375	0.9809	0.8996	0.2947	17.117
				$\omega\sqrt{\tau} = 0.21$				
2.000	1.069	0.2465	0.0071	0.9261	0.9584	0.8805	0.5344	14.908
3.007	1.176	0.2540	0.0059	0.9311	0.9652	0.8998	0.3911	15.257
3.998	1.429	0.3246	0.0052	0.9113	0.9674	0.9003	0.3575	19.603
4.983	1.781	0.3336	0.0043	0.9195	0.9782	0.8999	0.3574	19.941
6.002	2.141	0.3182	0.0032	0.9281	0.9812	0.8999	0.3568	18.926
7.003	2.497	0.3067	0.0025	0.9333	0.9824	0.8999	0.3566	18.191
8.003	2.855	0.2983	0.0030	0.9345	0.9810	0.9000	0.3568	17.704
9.004	3.220	0.2898	0.0029	0.9357	0.9795	0.8996	0.3576	17.211
10.020	3.584	0.2829	0.0028	0.9353	0.9772	0.8993	0.3577	16.830

Table A14. Internal Performance Characteristics of Configuration 11

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 2.50\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.002	0.879	0.1941	0.0213	0.8453	0.8675	0.8692	0.4392	12.933
3.001	0.432	0.2417	0.0128	0.7251	0.7644	0.8989	0.1441	18.436
3.995	0.463	0.3518	0.0091	0.7677	0.8445	0.8993	0.1160	24.618
5.006	0.518	0.3624	0.0091	0.8072	0.8848	0.8992	0.1035	24.177
6.013	0.577	0.3529	0.0075	0.8336	0.9053	0.8993	0.0960	22.942
6.997	0.677	0.3423	0.0071	0.8523	0.9185	0.8997	0.0968	21.880
8.006	0.776	0.3334	0.0076	0.8654	0.9274	0.8997	0.0970	21.067
9.003	0.874	0.3268	0.0074	0.8742	0.9333	0.8993	0.0970	20.498
10.024	0.970	0.3208	0.0072	0.8807	0.9373	0.8990	0.0968	20.014
				$\omega\sqrt{\tau} = 0.06$				
1.994	0.962	0.1927	0.0169	0.9151	0.9353	0.8674	0.4826	11.892
2.990	0.938	0.1980	0.0112	0.9293	0.9503	0.8951	0.3138	12.028
3.999	0.835	0.2529	-0.0034	0.8918	0.9269	0.8995	0.2089	15.832
5.008	1.019	0.3064	0.0016	0.9064	0.9568	0.8995	0.2034	18.679
5.998	1.216	0.3124	0.0052	0.9117	0.9638	0.8995	0.2027	18.916
7.013	1.453	0.3065	0.0045	0.9224	0.9720	0.8997	0.2072	18.378
7.993	1.639	0.2994	0.0044	0.9278	0.9749	0.8997	0.2050	17.884
8.994	1.847	0.2925	0.0048	0.9322	0.9770	0.8999	0.2053	17.418
9.984	2.042	0.2875	0.0039	0.9346	0.9779	0.8998	0.2045	17.101
				$\omega\sqrt{\tau} = 0.15$				
1.988	1.028	0.1940	0.0123	0.9291	0.9492	0.8750	0.5170	11.795
3.023	1.062	0.2232	0.0088	0.9343	0.9606	0.8980	0.3514	13.435
4.006	1.203	0.2815	0.0052	0.9169	0.9591	0.8996	0.3003	17.067
5.003	1.503	0.3182	0.0048	0.9183	0.9719	0.8996	0.3004	19.113
5.999	1.814	0.3107	0.0048	0.9276	0.9783	0.8995	0.3023	18.521
6.986	2.107	0.2997	0.0037	0.9338	0.9807	0.8998	0.3016	17.796
7.994	2.394	0.2907	0.0025	0.9369	0.9810	0.9000	0.2994	17.237
8.995	2.694	0.2849	0.0025	0.9386	0.9809	0.8997	0.2994	16.883
9.994	2.990	0.2785	0.0022	0.9397	0.9801	0.8999	0.2992	16.508
				$\omega\sqrt{\tau} = 0.21$				
2.003	1.062	0.2188	0.0119	0.9207	0.9464	0.8800	0.5299	13.366
3.014	1.122	0.2770	0.0073	0.9084	0.9497	0.8990	0.3724	16.960
4.006	1.461	0.3390	0.0048	0.9011	0.9627	0.8994	0.3647	20.617
5.004	1.826	0.3361	0.0039	0.9151	0.9749	0.8996	0.3649	20.164
6.000	2.175	0.3194	0.0039	0.9254	0.9790	0.8995	0.3625	19.044
7.000	2.540	0.3083	0.0025	0.9301	0.9799	0.8996	0.3629	18.336
7.995	2.914	0.3000	0.0020	0.9322	0.9792	0.8996	0.3645	17.838
9.012	3.274	0.2923	0.0016	0.9330	0.9777	0.8998	0.3633	17.395
10.023	3.653	0.2868	0.0013	0.9327	0.9758	0.8999	0.3645	17.093

Table A15. Internal Performance Characteristics of Configuration 12

[Dry power; A_t = 3.50 in^2; A_e/A_t = 2.00; A_{ej}/A_t = 0.62; δ = 18°; h_u/h_l = 4.04]

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau}$ = 0.00				
2.003	0.864	0.1595	0.0185	0.8498	0.8648	0.8742	0.4316	10.629
2.997	0.659	0.1496	0.0116	0.8478	0.8610	0.8978	0.2199	10.008
4.011	0.465	0.3246	0.0100	0.7749	0.8402	0.9003	0.1160	22.726
4.997	0.515	0.3365	0.0084	0.8124	0.8794	0.9004	0.1031	22.501
5.973	0.571	0.3339	0.0080	0.8366	0.9008	0.9000	0.0955	21.759
5.995	0.571	0.3344	0.0081	0.8372	0.9016	0.9000	0.0953	21.770
7.009	0.671	0.3254	0.0074	0.8564	0.9161	0.8998	0.0957	20.805
8.007	0.770	0.3180	0.0071	0.8696	0.9259	0.8993	0.0962	20.085
9.008	0.869	0.3118	0.0065	0.8788	0.9324	0.8993	0.0965	19.535
10.009	0.968	0.3060	0.0068	0.8849	0.9364	0.8992	0.0967	19.074
				$\omega\sqrt{\tau}$ = 0.06				
1.996	0.956	0.1816	0.0108	0.9150	0.9329	0.8678	0.4790	11.228
2.991	0.929	0.1880	0.0075	0.9297	0.9485	0.8962	0.3104	11.431
4.011	0.828	0.2652	-0.0075	0.8881	0.9269	0.9001	0.2064	16.625
4.992	1.025	0.3098	0.0030	0.9073	0.9588	0.8998	0.2053	18.854
5.984	1.233	0.3060	0.0039	0.9164	0.9661	0.8996	0.2060	18.462
6.989	1.438	0.2966	0.0049	0.9260	0.9724	0.8995	0.2057	17.762
7.995	1.649	0.2903	0.0041	0.9318	0.9760	0.8996	0.2062	17.304
8.991	1.842	0.2829	0.0040	0.9359	0.9777	0.8997	0.2049	16.818
9.995	2.068	0.2780	0.0040	0.9391	0.9794	0.8996	0.2069	16.491
				$\omega\sqrt{\tau}$ = 0.15				
1.978	1.024	0.1877	0.0101	0.9299	0.9487	0.8744	0.5177	11.411
2.987	1.031	0.2684	0.0071	0.9191	0.9575	0.8999	0.3450	16.282
4.003	1.221	0.3052	0.0037	0.9097	0.9595	0.8990	0.3049	18.547
4.990	1.515	0.3245	0.0035	0.9159	0.9717	0.9000	0.3036	19.510
5.995	1.818	0.3138	0.0040	0.9273	0.9789	0.8993	0.3032	18.697
6.998	2.118	0.3028	0.0038	0.9341	0.9820	0.8992	0.3026	17.962
8.013	2.436	0.2936	0.0025	0.9369	0.9819	0.9002	0.3040	17.399
8.992	2.737	0.2872	0.0024	0.9382	0.9812	0.8998	0.3044	17.022
9.987	3.024	0.2810	0.0025	0.9392	0.9803	0.8995	0.3028	16.657
				$\omega\sqrt{\tau}$ = 0.21				
1.986	1.057	0.2243	0.0068	0.9157	0.9428	0.8795	0.5324	13.766
3.005	1.135	0.2921	0.0072	0.9012	0.9474	0.9001	0.3777	17.960
4.020	1.483	0.3528	0.0031	0.8977	0.9646	0.8999	0.3690	21.456
4.992	1.865	0.3454	0.0028	0.9127	0.9758	0.8999	0.3736	20.730
5.989	2.207	0.3287	0.0031	0.9240	0.9807	0.8997	0.3686	19.584
6.995	2.592	0.3160	0.0024	0.9284	0.9807	0.8991	0.3706	18.794
8.018	2.962	0.3068	0.0018	0.9309	0.9801	0.9001	0.3694	18.238
8.988	3.306	0.2992	0.0015	0.9317	0.9786	0.8999	0.3679	17.804
9.982	3.692	0.2937	0.0017	0.9313	0.9765	0.8993	0.3698	17.501

Table A16. Internal Performance Characteristics of Configuration 13

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.005	0.430	0.0048	0.0198	0.8067	0.8070	0.9383	0.2144	0.338
3.007	0.508	-0.0204	0.0083	0.9057	0.9059	0.9371	0.1691	-1.289
4.007	0.551	-0.0159	0.0077	0.9419	0.9421	0.9371	0.1374	-0.965
5.008	0.678	-0.0165	0.0063	0.9612	0.9614	0.9367	0.1354	-0.981
6.002	0.806	-0.0155	0.0056	0.9689	0.9690	0.9356	0.1343	-0.914
				$\omega\sqrt{\tau} = 0.01$				
2.009	0.748	-0.0201	0.0099	0.8798	0.8801	0.9388	0.3721	-1.310
3.010	0.659	-0.0178	0.0075	0.9201	0.9203	0.9373	0.2188	-1.108
4.002	0.861	-0.0140	0.0076	0.9619	0.9621	0.9369	0.2152	-0.836
5.001	1.073	-0.0138	0.0060	0.9769	0.9770	0.9363	0.2146	-0.807
6.009	1.266	-0.0133	0.0053	0.9820	0.9821	0.9357	0.2106	-0.776
				$\omega\sqrt{\tau} = 0.03$				
2.010	0.833	-0.0157	0.0097	0.8967	0.8969	0.9386	0.4145	-1.003
2.997	0.876	-0.0128	0.0087	0.9396	0.9398	0.9370	0.2924	-0.781
4.002	1.161	-0.0134	0.0069	0.9697	0.9698	0.9369	0.2900	-0.791
5.005	1.446	-0.0132	0.0065	0.9813	0.9814	0.9364	0.2889	-0.768
6.008	1.722	-0.0118	0.0058	0.9857	0.9858	0.9357	0.2866	-0.687
				$\omega\sqrt{\tau} = 0.05$				
2.010	0.904	-0.0152	0.0145	0.9072	0.9075	0.9389	0.4500	-0.961
3.007	1.236	-0.0098	0.0101	0.9364	0.9365	0.9371	0.4111	-0.597
4.003	1.639	-0.0114	0.0077	0.9664	0.9664	0.9367	0.4094	-0.674
5.005	2.042	-0.0116	0.0071	0.9766	0.9767	0.9364	0.4080	-0.680
6.012	2.451	-0.0113	0.0063	0.9806	0.9807	0.9357	0.4076	-0.663

Table A17. Internal Performance Characteristics of Configuration 14

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2;\ A_e/A_t = 1.52;\ A_{ej}/A_t = 0.12;\ \delta = 18°;\ h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.004	0.882	0.2468	0.0157	0.8786	0.9128	0.8991	0.4401	15.689
3.003	0.799	0.2715	0.0088	0.8860	0.9267	0.9174	0.2661	17.036
4.021	0.690	0.3828	0.0056	0.8549	0.9367	0.9171	0.1716	24.119
5.006	0.835	0.3680	0.0041	0.8775	0.9515	0.9167	0.1669	22.752
5.994	0.995	0.3535	0.0032	0.8852	0.9532	0.9165	0.1660	21.770
				$\omega\sqrt{\tau} = 0.01$				
2.006	0.945	0.2492	0.0113	0.8998	0.9337	0.9004	0.4708	15.484
2.999	0.923	0.2583	0.0091	0.9129	0.9488	0.9168	0.3077	15.800
3.996	0.971	0.3487	0.0038	0.8906	0.9564	0.9174	0.2431	21.380
5.013	1.083	0.3720	0.0027	0.8895	0.9641	0.9166	0.2160	22.694
6.010	1.292	0.3592	0.0021	0.8987	0.9678	0.9161	0.2149	21.785
				$\omega\sqrt{\tau} = 0.03$				
2.000	0.984	0.2494	0.0114	0.9075	0.9412	0.9013	0.4921	15.369
2.998	1.068	0.2525	0.0058	0.9192	0.9532	0.9176	0.3564	15.360
3.996	1.315	0.3843	0.0056	0.8834	0.9633	0.9172	0.3291	23.513
4.998	1.648	0.3740	0.0034	0.8979	0.9727	0.9168	0.3297	22.610
6.006	1.973	0.3602	0.0027	0.9068	0.9757	0.9161	0.3286	21.666
				$\omega\sqrt{\tau} = 0.05$				
1.995	1.055	0.2509	0.0107	0.9040	0.9382	0.9040	0.5291	15.511
3.021	1.281	0.2622	0.0091	0.9150	0.9519	0.9181	0.4240	15.988
3.998	1.716	0.3803	0.0076	0.8889	0.9669	0.9172	0.4293	23.161
5.014	2.092	0.3655	0.0050	0.9038	0.9749	0.9167	0.4172	22.019
5.993	2.510	0.3508	0.0040	0.9119	0.9771	0.9163	0.4187	21.043

Table A18. Internal Performance Characteristics of Configuration 15

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2;\ A_e/A_t = 1.52;\ A_{ej}/A_t = 0.12;\ \delta = 18°;\ h_u/h_l = 1.51\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.004	0.865	0.2362	0.0181	0.8821	0.9134	0.8979	0.4318	14.989
2.999	0.762	0.2388	0.0143	0.8975	0.9288	0.9158	0.2543	14.900
4.004	0.766	0.3995	0.0071	0.8528	0.9418	0.9165	0.1912	25.101
5.000	0.956	0.3807	0.0054	0.8773	0.9564	0.9166	0.1911	23.456
6.001	1.145	0.3640	0.0048	0.8903	0.9619	0.9159	0.1908	22.239
				$\omega\sqrt{\tau} = 0.01$				
1.994	0.930	0.2376	0.0160	0.8944	0.9256	0.8962	0.4663	14.877
2.989	1.000	0.2336	0.0123	0.9244	0.9536	0.9150	0.3345	14.184
4.007	1.106	0.3992	0.0071	0.8698	0.9571	0.9168	0.2760	24.651
5.012	1.354	0.3805	0.0060	0.8899	0.9679	0.9168	0.2701	23.152
6.003	1.629	0.3648	0.0048	0.9012	0.9722	0.9161	0.2714	22.035
				$\omega\sqrt{\tau} = 0.03$				
1.997	1.011	0.2410	0.0158	0.9041	0.9358	0.8973	0.5063	14.926
2.992	1.210	0.2533	0.0141	0.9193	0.9536	0.9160	0.4043	15.407
4.006	1.498	0.3956	0.0090	0.8808	0.9656	0.9170	0.3739	24.187
4.986	1.881	0.3765	0.0063	0.8993	0.9749	0.9168	0.3773	22.718
6.001	2.256	0.3599	0.0055	0.9091	0.9777	0.9160	0.3759	21.598
				$\omega\sqrt{\tau} = 0.05$				
1.994	1.137	0.2464	0.0155	0.9041	0.9372	0.8980	0.5702	15.247
2.996	1.409	0.2927	0.0156	0.9043	0.9506	0.9172	0.4704	17.937
4.009	1.829	0.3916	0.0090	0.8856	0.9683	0.9170	0.4562	23.856
4.995	2.279	0.3692	0.0068	0.9027	0.9753	0.9170	0.4563	22.241
6.001	2.733	0.3534	0.0055	0.9116	0.9777	0.9163	0.4554	21.188

Table A19. Internal Performance Characteristics of Configuration 16

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 2.06\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.996	0.883	0.2436	0.0108	0.8789	0.9121	0.8975	0.4424	15.492
3.004	0.787	0.2706	0.0104	0.8894	0.9297	0.9152	0.2621	16.924
3.994	0.687	0.3853	0.0033	0.8577	0.9403	0.9161	0.1719	24.190
5.005	0.838	0.3709	0.0032	0.8797	0.9547	0.9159	0.1674	22.862
5.997	0.998	0.3558	0.0024	0.8914	0.9598	0.9150	0.1664	21.759
				$\omega\sqrt{\tau} = 0.01$				
1.995	0.942	0.2459	0.0086	0.8977	0.9308	0.8967	0.4720	15.321
3.008	0.901	0.2591	0.0078	0.9100	0.9462	0.9150	0.2997	15.892
3.998	0.974	0.3569	0.0019	0.8854	0.9547	0.9156	0.2435	21.956
5.001	1.143	0.3733	0.0024	0.8874	0.9627	0.9156	0.2286	22.818
6.010	1.401	0.3622	0.0013	0.8993	0.9695	0.9152	0.2331	21.939
				$\omega\sqrt{\tau} = 0.03$				
1.989	1.010	0.2495	0.0110	0.9047	0.9385	0.8988	0.5081	15.416
2.994	1.104	0.2491	0.0030	0.9209	0.9540	0.9144	0.3685	15.134
3.998	1.374	0.3892	0.0056	0.8808	0.9630	0.9157	0.3436	23.836
5.001	1.724	0.3753	0.0035	0.8962	0.9716	0.9155	0.3446	22.722
6.006	2.031	0.3612	0.0027	0.9066	0.9760	0.9152	0.3382	21.724
				$\omega\sqrt{\tau} = 0.05$				
1.998	1.092	0.2485	0.0052	0.9065	0.9399	0.9000	0.5467	15.333
2.984	1.318	0.2617	0.0103	0.9160	0.9527	0.9158	0.4417	15.944
3.995	1.743	0.3821	0.0079	0.8871	0.9659	0.9158	0.4362	23.304
5.002	2.123	0.3678	0.0058	0.9034	0.9754	0.9155	0.4245	22.153
6.009	2.555	0.3527	0.0047	0.9115	0.9774	0.9150	0.4253	21.154

Table A20. Internal Performance Characteristics of Configuration 17

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.001	0.822	-0.0163	0.0129	0.8666	0.8669	0.9381	0.4107	-1.076
3.013	0.493	-0.0167	0.0076	0.8604	0.8606	0.9368	0.1637	-1.114
4.003	0.584	-0.0163	0.0064	0.9171	0.9173	0.9365	0.1460	-1.019
5.002	0.642	-0.0168	0.0061	0.9419	0.9421	0.9362	0.1284	-1.020
5.999	0.678	-0.0158	0.0047	0.9534	0.9535	0.9356	0.1130	-0.949
				$\omega\sqrt{\tau} = 0.02$				
1.998	0.884	-0.0118	0.0109	0.8889	0.8890	0.9380	0.4425	-0.759
3.002	0.595	-0.0138	0.0093	0.8769	0.8770	0.9374	0.1982	-0.900
3.995	0.798	-0.0142	0.0072	0.9400	0.9402	0.9358	0.1998	-0.867
4.996	0.977	-0.0139	0.0062	0.9680	0.9681	0.9360	0.1956	-0.823
6.013	1.165	-0.0132	0.0050	0.9768	0.9769	0.9356	0.1938	-0.776
				$\omega\sqrt{\tau} = 0.06$				
1.997	0.978	-0.0149	0.0127	0.9248	0.9250	0.9376	0.4898	-0.925
2.990	0.923	-0.0090	0.0110	0.9529	0.9530	0.9368	0.3087	-0.544
4.012	1.130	-0.0129	0.0074	0.9603	0.9605	0.9365	0.2816	-0.768
5.008	1.430	-0.0126	0.0061	0.9764	0.9765	0.9362	0.2857	-0.741
6.011	1.696	-0.0121	0.0054	0.9835	0.9836	0.9354	0.2822	-0.704
				$\omega\sqrt{\tau} = 0.09$				
1.997	1.039	-0.0103	0.0126	0.9243	0.9244	0.9380	0.5206	-0.640
3.009	1.134	0.0132	0.0450	0.9404	0.9415	0.9375	0.3768	0.806
3.990	1.511	-0.0103	0.0091	0.9585	0.9586	0.9358	0.3786	-0.617
5.008	1.868	-0.0108	0.0066	0.9743	0.9744	0.9364	0.3731	-0.636
6.002	2.229	-0.0113	0.0054	0.9820	0.9821	0.9356	0.3714	-0.660

Table A21. Internal Performance Characteristics of Configuration 18

$\left[\text{AB power; } A_t = 6.00\ \text{in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.011	0.921	0.2062	0.0182	0.8946	0.9182	0.8947	0.4579	12.978
3.000	0.884	0.1928	0.0117	0.9174	0.9375	0.9142	0.2947	11.871
3.996	0.765	0.2891	0.0089	0.8829	0.9290	0.9173	0.1913	18.128
4.993	0.674	0.3721	0.0046	0.8565	0.9339	0.9166	0.1350	23.478
6.013	0.734	0.3733	0.0034	0.8671	0.9441	0.9163	0.1220	23.293
				$\omega\sqrt{\tau} = 0.02$				
2.012	0.958	0.2087	0.0133	0.9138	0.9374	0.8938	0.4759	12.864
3.007	0.967	0.1821	0.0090	0.9406	0.9581	0.9146	0.3216	10.956
3.977	0.976	0.2482	0.0061	0.9249	0.9576	0.9171	0.2454	15.020
5.008	1.043	0.3152	0.0028	0.9053	0.9586	0.9163	0.2082	19.199
5.999	1.158	0.3601	0.0017	0.8922	0.9621	0.9162	0.1930	21.982
				$\omega\sqrt{\tau} = 0.06$				
1.998	1.012	0.2023	0.0108	0.9271	0.9490	0.8972	0.5066	12.310
3.010	1.079	0.1647	0.0088	0.9495	0.9637	0.9164	0.3586	9.839
4.016	1.253	0.2959	0.0095	0.9062	0.9533	0.9169	0.3120	18.083
5.011	1.567	0.3646	0.0062	0.8961	0.9674	0.9173	0.3128	22.139
5.998	1.869	0.3568	0.0043	0.9066	0.9743	0.9161	0.3116	21.481
				$\omega\sqrt{\tau} = 0.09$				
2.000	1.059	0.1963	0.0131	0.9268	0.9475	0.9004	0.5293	11.961
2.995	1.196	0.1766	0.0133	0.9398	0.9564	0.9170	0.3994	10.640
3.975	1.548	0.3170	0.0099	0.9034	0.9574	0.9170	0.3894	19.337
4.999	1.930	0.3693	0.0062	0.8990	0.9719	0.9172	0.3860	22.331
5.998	2.298	0.3561	0.0045	0.9096	0.9768	0.9159	0.3831	21.381

Table A22. Internal Performance Characteristics of Configuration 19

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 2.12\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.010	0.897	0.1718	0.0144	0.8932	0.9097	0.8943	0.4463	10.887
3.005	0.788	0.1556	0.0108	0.9087	0.9220	0.9147	0.2623	9.714
3.999	0.600	0.3092	0.0060	0.8488	0.9034	0.9175	0.1499	20.013
5.016	0.644	0.3498	0.0039	0.8577	0.9263	0.9174	0.1284	22.188
6.002	0.755	0.3551	0.0027	0.8715	0.9411	0.9161	0.1258	22.172
				$\omega\sqrt{\tau} = 0.02$				
2.011	0.954	0.1621	0.0119	0.9222	0.9364	0.8929	0.4743	9.967
3.001	0.955	0.1501	0.0095	0.9439	0.9558	0.9142	0.3183	9.035
3.985	0.945	0.2649	0.0071	0.9022	0.9403	0.9170	0.2371	16.365
5.001	1.113	0.3432	0.0039	0.8880	0.9521	0.9168	0.2225	21.133
5.994	1.348	0.3416	0.0025	0.9004	0.9631	0.9160	0.2249	20.778
				$\omega\sqrt{\tau} = 0.06$				
2.006	1.034	0.1642	0.0115	0.9345	0.9489	0.8935	0.5155	9.964
2.999	1.122	0.1526	0.0093	0.9512	0.9634	0.9153	0.3742	9.114
4.025	1.340	0.3077	0.0108	0.8995	0.9508	0.9172	0.3329	18.884
5.002	1.670	0.3499	0.0066	0.9007	0.9663	0.9167	0.3339	21.230
5.994	1.997	0.3409	0.0046	0.9126	0.9743	0.9160	0.3332	20.484
				$\omega\sqrt{\tau} = 0.09$				
1.999	1.098	0.1728	0.0120	0.9306	0.9466	0.8950	0.5494	10.516
2.995	1.280	0.1779	0.0114	0.9416	0.9583	0.9164	0.4275	10.697
4.026	1.634	0.3612	0.0097	0.8858	0.9566	0.9176	0.4059	22.184
5.001	2.025	0.3670	0.0061	0.8986	0.9707	0.9166	0.4050	22.216
5.992	2.449	0.3528	0.0048	0.9108	0.9767	0.9161	0.4087	21.173

Table A23. Internal Performance Characteristics of Configuration 20

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 3.32\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.999	0.886	0.1536	0.0152	0.8933	0.9066	0.8942	0.4435	9.759
2.998	0.739	0.1334	0.0110	0.9091	0.9189	0.9144	0.2464	8.345
4.013	0.569	0.3040	0.0057	0.8468	0.8997	0.9171	0.1417	19.750
5.007	0.673	0.3562	0.0036	0.8560	0.9272	0.9168	0.1344	22.594
6.004	0.806	0.3454	0.0028	0.8757	0.9414	0.9158	0.1343	21.527
				$\omega\sqrt{\tau} = 0.02$				
1.992	0.962	0.1537	0.0128	0.9287	0.9414	0.8908	0.4828	9.399
2.994	0.920	0.1395	0.0085	0.9410	0.9513	0.9135	0.3072	8.433
4.002	0.975	0.3422	0.0066	0.8727	0.9374	0.9170	0.2436	21.409
4.998	1.197	0.3431	0.0043	0.8912	0.9549	0.9170	0.2394	21.057
5.989	1.424	0.3319	0.0034	0.9060	0.9649	0.9159	0.2378	20.119
				$\omega\sqrt{\tau} = 0.06$				
1.991	1.030	0.1625	0.0133	0.9335	0.9477	0.8909	0.5172	9.873
2.978	1.129	0.1643	0.0124	0.9463	0.9605	0.9136	0.3792	9.847
4.004	1.371	0.3577	0.0123	0.8808	0.9507	0.9168	0.3423	22.103
4.998	1.709	0.3532	0.0069	0.9005	0.9673	0.9166	0.3419	21.418
5.992	2.053	0.3388	0.0053	0.9134	0.9743	0.9161	0.3426	20.351
				$\omega\sqrt{\tau} = 0.09$				
1.997	1.100	0.1900	0.0138	0.9234	0.9429	0.8945	0.5510	11.629
2.995	1.308	0.2055	0.0101	0.9338	0.9562	0.9149	0.4369	12.411
4.003	1.656	0.3847	0.0085	0.8768	0.9575	0.9169	0.4137	23.689
4.999	2.073	0.3690	0.0065	0.8975	0.9704	0.9167	0.4146	22.348
5.993	2.485	0.3533	0.0052	0.9100	0.9761	0.9160	0.4147	21.218

Table A24. Internal Performance Characteristics of Configuration 21

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2;\ A_e/A_t = 2.00;\ A_{ej}/A_t = 0.36;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.999	0.896	-0.0142	0.0140	0.8745	0.8748	0.9387	0.4482	-0.927
2.992	0.402	-0.0162	0.0117	0.7941	0.7944	0.9382	0.1342	-1.165
3.996	0.483	-0.0141	0.0101	0.8737	0.8739	0.9376	0.1209	-0.928
4.998	0.548	-0.0127	0.0091	0.9122	0.9123	0.9371	0.1097	-0.795
5.993	0.597	-0.0114	0.0074	0.9329	0.9330	0.9366	0.0995	-0.701
				$\omega\sqrt{\tau} = 0.03$				
1.997	0.934	-0.0019	0.0120	0.8953	0.8954	0.9394	0.4676	-0.122
2.981	0.930	-0.0048	0.0086	0.9490	0.9491	0.9373	0.3121	-0.287
4.010	0.731	-0.0048	0.0083	0.9096	0.9096	0.9373	0.1824	-0.304
4.999	0.914	-0.0055	0.0071	0.9500	0.9501	0.9372	0.1828	-0.329
5.999	1.084	-0.0054	0.0063	0.9654	0.9655	0.9357	0.1808	-0.323
				$\omega\sqrt{\tau} = 0.09$				
1.997	1.021	-0.0017	0.0114	0.9086	0.9087	0.9371	0.5110	-0.108
2.997	1.133	-0.0020	0.0079	0.9556	0.9556	0.9378	0.3780	-0.121
3.990	1.422	-0.0037	0.0066	0.9301	0.9301	0.9370	0.3563	-0.226
5.004	1.772	-0.0033	0.0064	0.9545	0.9545	0.9363	0.3541	-0.199
6.000	2.131	-0.0036	0.0055	0.9685	0.9685	0.9356	0.3553	-0.215
				$\omega\sqrt{\tau} = 0.12$				
1.993	1.096	0.0028	0.0092	0.9066	0.9066	0.9386	0.5496	0.177
2.996	1.407	0.0000	-0.0005	0.9085	0.9085	0.9375	0.4698	-0.001
3.987	1.889	-0.0017	0.0063	0.9267	0.9267	0.9369	0.4739	-0.104
5.013	2.386	-0.0029	0.0055	0.9516	0.9516	0.9367	0.4759	-0.173
5.999	2.843	-0.0032	0.0049	0.9646	0.9646	0.9356	0.4738	-0.187

Table A25. Internal Performance Characteristics of Configuration 22

$\left[\text{AB power}; A_t = 6.00\ \text{in}^2; A_e/A_t = 2.00; A_{ej}/A_t = 0.36; \delta = 18°; h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.994	0.951	0.1460	0.0125	0.9142	0.9259	0.8914	0.4769	9.072
2.998	0.927	0.1407	0.0083	0.9300	0.9407	0.9133	0.3091	8.605
3.995	0.844	0.2275	0.0070	0.9013	0.9296	0.9165	0.2113	14.167
5.006	0.687	0.3359	0.0025	0.8543	0.9180	0.9168	0.1373	21.461
6.001	0.653	0.3576	0.0022	0.8566	0.9283	0.9162	0.1088	22.658
				$\omega\sqrt{\tau} = 0.03$				
2.002	0.986	0.1523	0.0105	0.9424	0.9546	0.8906	0.4924	9.181
3.000	0.984	0.1274	0.0082	0.9598	0.9683	0.9134	0.3279	7.560
3.994	1.002	0.1886	0.0062	0.9433	0.9620	0.9170	0.2508	11.305
5.004	1.049	0.2669	0.0049	0.9173	0.9554	0.9170	0.2096	16.221
6.003	1.100	0.3207	0.0013	0.9019	0.9572	0.9159	0.1833	19.575
				$\omega\sqrt{\tau} = 0.09$				
1.993	1.038	0.1382	0.0124	0.9509	0.9610	0.8950	0.5206	8.268
2.995	1.100	0.1225	0.0114	0.9604	0.9682	0.9155	0.3673	7.268
3.996	1.258	0.2274	0.0091	0.9279	0.9554	0.9173	0.3149	13.771
4.996	1.499	0.3303	0.0061	0.9022	0.9608	0.9171	0.3000	20.108
5.995	1.784	0.3357	0.0042	0.9113	0.9712	0.9161	0.2976	20.224
				$\omega\sqrt{\tau} = 0.12$				
1.997	1.075	0.1396	0.0102	0.9476	0.9579	0.8975	0.5382	8.378
2.992	1.185	0.1315	0.0115	0.9561	0.9652	0.9163	0.3960	7.833
3.997	1.428	0.2493	0.0086	0.9218	0.9550	0.9172	0.3572	15.131
4.998	1.765	0.3438	0.0052	0.9025	0.9657	0.9167	0.3531	20.854
5.993	2.114	0.3418	0.0038	0.9127	0.9746	0.9161	0.3528	20.532

Table A26. Internal Performance Characteristics of Configuration 23

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 2.66\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.008	0.930	0.1131	0.0142	0.9123	0.9194	0.8919	0.4632	7.070
3.002	0.818	0.1118	0.0125	0.9126	0.9195	0.9142	0.2723	6.982
3.994	0.570	0.2707	0.0059	0.8323	0.8752	0.9171	0.1427	18.015
5.002	0.556	0.3239	0.0040	0.8410	0.9013	0.9163	0.1111	21.061
6.000	0.605	0.3371	0.0034	0.8560	0.9200	0.9163	0.1009	21.492
				$\omega\sqrt{\tau} = 0.03$				
2.006	0.980	0.1128	0.0144	0.9457	0.9525	0.8899	0.4882	6.804
3.014	0.970	0.1168	0.0112	0.9549	0.9620	0.9143	0.3220	6.973
4.007	0.982	0.1668	0.0086	0.9464	0.9610	0.9174	0.2450	9.999
5.010	1.032	0.2471	0.0061	0.9187	0.9514	0.9171	0.2060	15.052
6.002	1.154	0.3014	0.0038	0.9059	0.9548	0.9162	0.1923	18.404
				$\omega\sqrt{\tau} = 0.09$				
1.997	1.032	0.1096	0.0119	0.9544	0.9607	0.8944	0.5170	6.552
2.981	1.085	0.1182	0.0127	0.9606	0.9679	0.9152	0.3638	7.017
4.007	1.238	0.2332	0.0111	0.9225	0.9516	0.9175	0.3089	14.184
4.999	1.537	0.3204	0.0077	0.9064	0.9614	0.9170	0.3075	19.467
6.001	1.837	0.3250	0.0057	0.9156	0.9716	0.9162	0.3062	19.546
				$\omega\sqrt{\tau} = 0.12$				
1.992	1.064	0.1228	0.0146	0.9508	0.9588	0.8969	0.5340	7.358
2.975	1.155	0.1365	0.0116	0.9518	0.9616	0.9168	0.3884	8.160
4.006	1.442	0.2640	0.0086	0.9153	0.9526	0.9174	0.3600	16.091
4.997	1.795	0.3385	0.0070	0.9043	0.9656	0.9169	0.3593	20.522
6.000	2.158	0.3387	0.0058	0.9139	0.9747	0.9161	0.3597	20.337

Table A27. Internal Performance Characteristics of Configuration 24

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 4.59\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.003	0.923	0.1016	0.0147	0.9138	0.9195	0.8913	0.4606	6.346
2.997	0.769	0.0900	0.0122	0.9093	0.9138	0.9148	0.2565	5.655
4.009	0.533	0.2643	0.0056	0.8286	0.8697	0.9168	0.1328	17.691
5.001	0.536	0.3186	0.0038	0.8395	0.8979	0.9166	0.1071	20.785
5.993	0.604	0.3299	0.0028	0.8569	0.9182	0.9161	0.1008	21.058
				$\omega\sqrt{\tau} = 0.03$				
1.998	0.971	0.1068	0.0097	0.9428	0.9488	0.8893	0.4862	6.466
3.001	0.959	0.1122	0.0116	0.9500	0.9567	0.9136	0.3195	6.734
3.997	0.909	0.2141	0.0151	0.9050	0.9302	0.9176	0.2273	13.311
5.006	1.011	0.2591	0.0058	0.9094	0.9456	0.9169	0.2020	15.904
5.967	1.215	0.3066	0.0041	0.9032	0.9539	0.9162	0.2036	18.750
				$\omega\sqrt{\tau} = 0.09$				
1.990	1.038	0.1062	0.0150	0.9530	0.9590	0.8927	0.5216	6.361
2.995	1.103	0.1262	0.0116	0.9563	0.9646	0.9155	0.3684	7.519
3.990	1.256	0.2469	0.0097	0.9143	0.9471	0.9177	0.3147	15.112
5.006	1.569	0.3050	0.0075	0.9106	0.9604	0.9168	0.3135	18.518
5.999	1.892	0.3236	0.0057	0.9152	0.9707	0.9164	0.3154	19.472
				$\omega\sqrt{\tau} = 0.12$				
1.996	1.078	0.1255	0.0128	0.9473	0.9557	0.8950	0.5403	7.544
2.991	1.181	0.1446	0.0107	0.9463	0.9573	0.9163	0.3949	8.688
3.990	1.465	0.2735	0.0089	0.9088	0.9491	0.9175	0.3672	16.752
4.990	1.834	0.3430	0.0073	0.9017	0.9647	0.9168	0.3676	20.826
6.018	2.204	0.3387	0.0054	0.9130	0.9738	0.9162	0.3662	20.351

Table A28. Internal Performance Characteristics of Configuration 25

$\left[\text{Dry power; } A_t = 3.208 \text{ in}^2;\ A_e/A_t = 1.66;\ A_{ej}/A_t = 0.23;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.004	0.726	-0.0416	0.0028	0.8026	0.8037	0.9253	0.3623	-2.964
3.005	0.478	-0.0344	0.0065	0.8628	0.8635	0.9234	0.1592	-2.285
3.997	0.512	-0.0271	0.0048	0.9112	0.9116	0.9232	0.1281	-1.703
5.003	0.592	-0.0226	0.0050	0.9376	0.9379	0.9233	0.1184	-1.382
5.990	0.706	-0.0215	0.0049	0.9514	0.9517	0.9229	0.1179	-1.297
6.997	0.820	-0.0191	0.0041	0.9584	0.9586	0.9226	0.1173	-1.141
7.990	0.933	-0.0187	0.0042	0.9621	0.9623	0.9222	0.1167	-1.111
9.012	1.046	-0.0181	0.0043	0.9643	0.9645	0.9221	0.1160	-1.075
10.001	1.156	-0.0185	0.0041	0.9650	0.9652	0.9223	0.1156	-1.097
				$\omega\sqrt{\tau} = 0.02$				
2.000	0.830	-0.0035	0.0026	0.8365	0.8365	0.9261	0.4148	-0.238
2.990	0.617	-0.0020	0.0011	0.8865	0.8865	0.9236	0.2064	-0.131
4.003	0.848	-0.0090	0.0059	0.9501	0.9502	0.9230	0.2119	-0.546
4.996	1.038	-0.0091	0.0056	0.9693	0.9694	0.9228	0.2078	-0.536
6.004	1.244	-0.0089	0.0044	0.9766	0.9767	0.9228	0.2073	-0.522
7.000	1.454	-0.0100	0.0043	0.9787	0.9788	0.9223	0.2078	-0.585
8.011	1.658	-0.0094	0.0044	0.9838	0.9838	0.9219	0.2070	-0.545
8.992	1.866	-0.0098	0.0044	0.9843	0.9844	0.9220	0.2075	-0.571
9.994	2.052	-0.0110	0.0048	0.9836	0.9837	0.9215	0.2053	-0.641
				$\omega\sqrt{\tau} = 0.05$				
1.987	0.879	-0.0032	0.0024	0.8456	0.8456	0.9262	0.4425	-0.215
3.002	0.827	0.0250	-0.0020	0.9255	0.9258	0.9241	0.2753	1.546
3.995	1.085	-0.0047	0.0054	0.9608	0.9609	0.9229	0.2716	-0.281
4.994	1.339	-0.0059	0.0042	0.9740	0.9740	0.9229	0.2682	-0.345
6.010	1.608	-0.0080	0.0043	0.9771	0.9771	0.9226	0.2676	-0.469
7.001	1.872	-0.0075	0.0035	0.9845	0.9845	0.9222	0.2674	-0.437
8.010	2.132	-0.0072	0.0034	0.9848	0.9848	0.9223	0.2661	-0.420
9.000	2.398	-0.0089	0.0041	0.9843	0.9844	0.9221	0.2664	-0.517
9.996	2.670	-0.0092	0.0036	0.9823	0.9823	0.9217	0.2671	-0.535
				$\omega\sqrt{\tau} = 0.08$				
1.994	0.958	-0.0019	0.0022	0.8718	0.8718	0.9261	0.4803	-0.126
3.005	1.030	0.0254	-0.0026	0.9336	0.9339	0.9240	0.3426	1.561
4.002	1.345	-0.0008	0.0035	0.9580	0.9580	0.9230	0.3360	-0.046
4.996	1.680	-0.0029	0.0039	0.9702	0.9702	0.9228	0.3363	-0.174
6.006	2.004	-0.0020	0.0039	0.9772	0.9772	0.9226	0.3337	-0.117
6.997	2.329	-0.0052	0.0031	0.9789	0.9789	0.9220	0.3329	-0.306
8.018	2.668	-0.0041	0.0026	0.9792	0.9792	0.9222	0.3327	-0.238
8.986	2.996	-0.0059	0.0027	0.9793	0.9793	0.9222	0.3334	-0.347
10.012	3.343	-0.0058	0.0029	0.9762	0.9762	0.9219	0.3339	-0.340

Table A29. Internal Performance Characteristics of Configuration 26

$\left[\text{Dry power; } A_t = 2.962 \text{ in}^2\text{; } A_e/A_t = 1.79\text{; } A_{ej}/A_t = 0.25\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
2.010	0.718	-0.0257	0.0106	0.7386	0.7392	0.9201	0.3574	-1.994
2.993	0.459	-0.0138	0.0090	0.8245	0.8246	0.9175	0.1534	-0.962
3.998	0.497	-0.0087	0.0058	0.8884	0.8885	0.9168	0.1243	-0.564
4.999	0.552	-0.0084	0.0045	0.9199	0.9200	0.9165	0.1105	-0.521
5.994	0.659	-0.0080	0.0036	0.9386	0.9387	0.9165	0.1099	-0.486
6.978	0.763	-0.0074	0.0047	0.9499	0.9499	0.9160	0.1094	-0.449
7.987	0.870	-0.0084	0.0038	0.9561	0.9561	0.9157	0.1090	-0.500
8.983	0.974	-0.0076	0.0034	0.9596	0.9596	0.9159	0.1084	-0.456
9.994	1.079	-0.0082	0.0036	0.9620	0.9621	0.9156	0.1080	-0.488
				$\omega\sqrt{\tau} = 0.02$				
1.996	0.787	-0.0082	0.0068	0.7618	0.7619	0.9192	0.3944	-0.617
3.000	0.598	-0.0465	0.0166	0.8498	0.8513	0.9168	0.1993	-3.131
4.020	0.774	-0.0091	0.0043	0.9208	0.9209	0.9164	0.1925	-0.567
4.994	0.976	-0.0083	0.0044	0.9564	0.9564	0.9162	0.1955	-0.496
6.010	1.160	-0.0078	0.0035	0.9667	0.9667	0.9163	0.1930	-0.460
6.998	1.339	-0.0072	0.0036	0.9735	0.9735	0.9160	0.1913	-0.424
7.994	1.529	-0.0068	0.0029	0.9786	0.9787	0.9155	0.1913	-0.395
8.986	1.768	-0.0075	0.0031	0.9812	0.9812	0.9157	0.1968	-0.436
9.993	1.920	-0.0070	0.0033	0.9819	0.9819	0.9153	0.1921	-0.408
				$\omega\sqrt{\tau} = 0.05$				
1.988	0.878	-0.0081	0.0064	0.7923	0.7923	0.9190	0.4416	-0.586
2.993	0.868	-0.0149	0.0061	0.8999	0.9001	0.9169	0.2899	-0.946
3.997	1.004	-0.0136	0.0042	0.9424	0.9426	0.9164	0.2511	-0.827
4.996	1.247	-0.0085	0.0043	0.9596	0.9596	0.9163	0.2497	-0.505
5.981	1.490	-0.0095	0.0032	0.9710	0.9710	0.9163	0.2491	-0.562
6.990	1.736	-0.0087	0.0027	0.9768	0.9769	0.9158	0.2484	-0.508
7.987	1.973	-0.0080	0.0029	0.9796	0.9796	0.9156	0.2470	-0.466
8.988	2.225	-0.0074	0.0025	0.9807	0.9807	0.9156	0.2475	-0.431
9.998	2.470	-0.0078	0.0026	0.9809	0.9810	0.9155	0.2471	-0.453
				$\omega\sqrt{\tau} = 0.08$				
1.997	0.938	-0.0085	0.0064	0.8087	0.8088	0.9188	0.4698	-0.602
2.990	0.943	-0.0395	0.0126	0.9015	0.9025	0.9169	0.3152	-2.509
3.989	1.246	-0.0162	0.0042	0.9377	0.9379	0.9165	0.3124	-0.987
4.987	1.553	-0.0107	0.0031	0.9580	0.9581	0.9163	0.3115	-0.638
5.995	1.864	-0.0074	0.0032	0.9689	0.9689	0.9162	0.3110	-0.440
7.002	2.169	-0.0085	0.0034	0.9743	0.9743	0.9158	0.3098	-0.501
8.001	2.483	-0.0078	0.0028	0.9762	0.9763	0.9154	0.3103	-0.458
8.987	2.787	-0.0084	0.0023	0.9768	0.9768	0.9158	0.3101	-0.490
9.987	3.099	-0.0087	0.0026	0.9765	0.9765	0.9153	0.3103	-0.511

Table A30. Internal Performance Characteristics of Configuration 27

$\left[\text{AB power; } A_t = 5.499 \text{ in}^2;\ A_e/A_t = 1.66;\ A_{ej}/A_t = 0.13;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.991	0.502	-0.0324	0.0164	0.7583	0.7592	0.9290	0.2523	-2.445
2.996	0.475	-0.0245	0.0041	0.8678	0.8682	0.9282	0.1586	-1.619
4.005	0.514	-0.0219	0.0038	0.9194	0.9196	0.9275	0.1284	-1.367
4.991	0.631	-0.0177	0.0022	0.9460	0.9461	0.9275	0.1264	-1.074
6.000	0.753	-0.0177	0.0015	0.9596	0.9598	0.9268	0.1255	-1.058
				$\omega\sqrt{\tau} = 0.01$				
1.998	0.798	-0.0180	0.0120	0.8291	0.8294	0.9278	0.3992	-1.244
3.008	0.600	-0.0121	0.0034	0.8823	0.8824	0.9275	0.1994	-0.788
3.996	0.797	-0.0150	0.0042	0.9395	0.9396	0.9269	0.1994	-0.916
4.985	1.010	-0.0123	0.0031	0.9647	0.9648	0.9271	0.2025	-0.731
5.994	1.204	-0.0133	0.0023	0.9743	0.9744	0.9266	0.2009	-0.784
				$\omega\sqrt{\tau} = 0.03$				
1.999	0.871	-0.0131	0.0147	0.8453	0.8455	0.9280	0.4359	-0.886
3.009	0.816	-0.0113	0.0100	0.9033	0.9034	0.9276	0.2712	-0.717
3.993	1.071	-0.0128	0.0065	0.9512	0.9513	0.9270	0.2683	-0.768
4.989	1.334	-0.0105	0.0034	0.9689	0.9689	0.9273	0.2675	-0.619
5.989	1.589	-0.0127	0.0037	0.9779	0.9780	0.9265	0.2653	-0.745
				$\omega\sqrt{\tau} = 0.05$				
1.995	0.935	-0.0083	0.0190	0.8540	0.8543	0.9275	0.4686	-0.559
2.985	1.120	-0.0080	0.0176	0.9039	0.9041	0.9273	0.3754	-0.509
3.995	1.505	-0.0104	0.0089	0.9470	0.9471	0.9269	0.3767	-0.629
4.994	1.855	-0.0099	0.0066	0.9646	0.9647	0.9270	0.3715	-0.588
5.995	2.240	-0.0093	0.0060	0.9731	0.9731	0.9264	0.3737	-0.548

Table A31. Internal Performance Characteristics of Configuration 28

$\left[\text{AB power; } A_t = 5.079 \text{ in}^2\text{; } A_e/A_t = 1.79\text{; } A_{ej}/A_t = 0.14\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	SNPR	F_N/F_i	F_S/F_i	F/F_i	F_r/F_i	w_p/w_i	$p_{t,s}/p_{t,j}$	δ_p, deg
				$\omega\sqrt{\tau} = 0.00$				
1.983	0.787	-0.0194	0.0111	0.8554	0.8557	0.9179	0.3968	-1.301
2.997	0.463	-0.0160	0.0088	0.8298	0.8300	0.9253	0.1545	-1.106
3.983	0.501	-0.0163	0.0075	0.8929	0.8931	0.9256	0.1259	-1.046
4.996	0.594	-0.0159	0.0065	0.9271	0.9273	0.9252	0.1189	-0.982
5.996	0.709	-0.0152	0.0059	0.9453	0.9454	0.9248	0.1183	-0.921
				$\omega\sqrt{\tau} = 0.01$				
2.005	0.812	-0.0143	0.0086	0.8643	0.8644	0.9149	0.4049	-0.950
2.985	0.577	-0.0131	0.0074	0.8410	0.8411	0.9256	0.1934	-0.890
3.997	0.771	-0.0123	0.0072	0.9138	0.9139	0.9248	0.1930	-0.772
4.994	0.972	-0.0127	0.0064	0.9485	0.9486	0.9248	0.1946	-0.766
6.003	1.192	-0.0126	0.0052	0.9628	0.9629	0.9251	0.1986	-0.751
				$\omega\sqrt{\tau} = 0.03$				
2.004	0.857	-0.0143	0.0084	0.8754	0.8756	0.9154	0.4274	-0.938
3.002	0.761	-0.0128	0.0075	0.8619	0.8621	0.9259	0.2534	-0.850
3.993	1.006	-0.0119	0.0062	0.9298	0.9299	0.9255	0.2519	-0.735
4.999	1.296	-0.0122	0.0056	0.9524	0.9525	0.9249	0.2592	-0.737
6.004	1.486	-0.0133	0.0056	0.9665	0.9666	0.9249	0.2476	-0.788
				$\omega\sqrt{\tau} = 0.05$				
1.997	0.917	-0.0144	0.0084	0.8743	0.8745	0.9182	0.4589	-0.945
3.001	1.075	-0.0122	0.0072	0.8689	0.8691	0.9250	0.3582	-0.807
4.994	1.711	-0.0120	0.0055	0.9486	0.9487	0.9248	0.3426	-0.724
6.001	2.041	-0.0119	0.0050	0.9614	0.9615	0.9247	0.3400	-0.711

Table A32. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 1

$\left[\text{Top surface only; dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.3361	0.3417	0.3401	0.3338	0.3668	0.4103	0.4510	0.4865
2.989	0.1649	0.1685	0.1685	0.2018	0.2278	0.1873	0.1587	0.3133
4.011	0.1318	0.1345	0.1342	0.2379	0.2312	0.1880	0.1590	0.1447
5.003	0.1251	0.1279	0.1269	0.2488	0.2309	0.1874	0.1599	0.1457
5.991	0.1247	0.1267	0.1260	0.2497	0.2316	0.1871	0.1585	0.1431
7.010	0.1243	0.1255	0.1251	0.2509	0.2308	0.1866	0.1596	0.1454
8.009	0.1237	0.1244	0.1243	0.2507	0.2320	0.1871	0.1586	0.1436
9.000	0.1235	0.1240	0.1236	0.2526	0.2307	0.1865	0.1597	0.1463
9.994	0.1231	0.1233	0.1231	0.2527	0.2314	0.1867	0.1588	0.1438
				$\omega\sqrt{\tau}$ = 0.02				
1.981	0.3983	0.3941	0.3933	0.3949	0.3968	0.4248	0.4599	0.4923
2.996	0.2258	0.2152	0.2149	0.2162	0.2166	0.1877	0.1798	0.3149
3.992	0.2242	0.2144	0.2139	0.2150	0.2159	0.1879	0.1613	0.1779
4.988	0.2259	0.2156	0.2148	0.2159	0.2167	0.1873	0.1607	0.1437
6.002	0.2224	0.2126	0.2119	0.2133	0.2175	0.1869	0.1600	0.1431
7.006	0.2213	0.2120	0.2112	0.2128	0.2179	0.1867	0.1599	0.1425
8.001	0.2221	0.2126	0.2116	0.2132	0.2177	0.1867	0.1601	0.1428
9.013	0.2212	0.2118	0.2109	0.2126	0.2176	0.1865	0.1607	0.1441
10.013	0.2223	0.2125	0.2115	0.2133	0.2174	0.1864	0.1608	0.1441
				$\omega\sqrt{\tau}$ = 0.05				
2.007	0.4357	0.4104	0.4087	0.4167	0.4178	0.4316	0.4596	0.4877
2.983	0.2947	0.2524	0.2445	0.2500	0.2230	0.2053	0.2824	0.3208
3.996	0.2907	0.2503	0.2423	0.2486	0.2220	0.1912	0.1674	0.1888
4.978	0.2922	0.2503	0.2415	0.2494	0.2223	0.1910	0.1674	0.1533
5.995	0.2880	0.2481	0.2400	0.2478	0.2215	0.1904	0.1669	0.1522
7.001	0.2877	0.2477	0.2397	0.2476	0.2214	0.1904	0.1675	0.1529
7.989	0.2869	0.2472	0.2395	0.2474	0.2213	0.1902	0.1673	0.1528
8.994	0.2867	0.2468	0.2396	0.2474	0.2213	0.1897	0.1664	0.1520
10.005	0.2866	0.2467	0.2402	0.2473	0.2211	0.1899	0.1673	0.1526
				$\omega\sqrt{\tau}$ = 0.08				
1.989	0.4802	0.4164	0.4045	0.4353	0.4467	0.4537	0.4722	0.4943
2.992	0.3692	0.2817	0.2393	0.2759	0.2353	0.1997	0.2657	0.3211
3.983	0.3634	0.2777	0.2336	0.2745	0.2346	0.1987	0.1752	0.2099
4.998	0.3613	0.2756	0.2305	0.2741	0.2338	0.1981	0.1755	0.1626
6.004	0.3613	0.2751	0.2283	0.2741	0.2338	0.1979	0.1753	0.1625
6.993	0.3639	0.2764	0.2271	0.2746	0.2339	0.1979	0.1756	0.1628
7.994	0.3604	0.2741	0.2276	0.2741	0.2337	0.1970	0.1740	0.1621
9.000	0.3609	0.2741	0.2274	0.2742	0.2335	0.1969	0.1743	0.1619
9.996	0.3594	0.2735	0.2288	0.2734	0.2331	0.1967	0.1741	0.1615

Table A33. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 2

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$ x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.995	0.4036	0.4062	0.4067	0.4473	0.5795	0.5536	0.4738	0.4347
2.980	0.1960	0.2006	0.1951	0.5142	0.3648	0.2775	0.2135	0.2999
4.001	0.1484	0.1483	0.1346	0.4779	0.3482	0.2631	0.1968	0.1500
4.998	0.1487	0.1479	0.1336	0.4777	0.3470	0.2629	0.1966	0.1502
5.997	0.1490	0.1492	0.1344	0.4777	0.3465	0.2625	0.1961	0.1495
6.996	0.1488	0.1486	0.1358	0.4777	0.3470	0.2624	0.1963	0.1496
7.994	0.1495	0.1491	0.1369	0.4790	0.3469	0.2626	0.1961	0.1494
8.998	0.1508	0.1499	0.1376	0.4812	0.3463	0.2627	0.1965	0.1499
10.007	0.1507	0.1500	0.1387	0.4809	0.3468	0.2626	0.1963	0.1496
				$\omega\sqrt{\tau} = 0.02$				
1.989	0.4308	0.4327	0.4298	0.4604	0.5982	0.5584	0.4965	0.4459
3.002	0.2204	0.2186	0.2172	0.4956	0.3672	0.2702	0.2017	0.3057
4.005	0.2087	0.2073	0.2051	0.5091	0.3639	0.2688	0.2004	0.1531
5.011	0.2269	0.2255	0.2243	0.4903	0.3683	0.2713	0.2018	0.1544
6.007	0.2240	0.2230	0.2217	0.4930	0.3673	0.2705	0.2013	0.1538
6.989	0.2233	0.2223	0.2217	0.4920	0.3668	0.2701	0.2012	0.1541
7.998	0.2208	0.2202	0.2193	0.4940	0.3660	0.2700	0.2016	0.1541
9.002	0.2233	0.2224	0.2217	0.4906	0.3662	0.2705	0.2020	0.1544
10.017	0.2263	0.2256	0.2251	0.4865	0.3672	0.2711	0.2022	0.1547
				$\omega\sqrt{\tau} = 0.05$				
1.982	0.4780	0.4716	0.4720	0.4814	0.5856	0.5649	0.5214	0.4742
3.001	0.3143	0.3097	0.3101	0.3920	0.3795	0.2834	0.2117	0.2974
4.003	0.3129	0.3083	0.3091	0.3944	0.3782	0.2829	0.2112	0.1618
4.974	0.3162	0.3114	0.3126	0.3946	0.3769	0.2830	0.2113	0.1622
5.986	0.3060	0.3021	0.3031	0.4029	0.3767	0.2818	0.2099	0.1606
7.000	0.3143	0.3099	0.3110	0.3986	0.3751	0.2821	0.2109	0.1623
7.997	0.3111	0.3068	0.3079	0.4011	0.3752	0.2819	0.2107	0.1618
8.999	0.3092	0.3054	0.3065	0.4035	0.3742	0.2816	0.2108	0.1624
10.006	0.3090	0.3048	0.3060	0.4040	0.3747	0.2816	0.2105	0.1619
				$\omega\sqrt{\tau} = 0.08$				
1.991	0.5006	0.4853	0.4833	0.4937	0.5447	0.5304	0.5105	0.4639
3.000	0.3949	0.3776	0.3761	0.3868	0.3735	0.2875	0.2173	0.2910
4.003	0.3957	0.3784	0.3763	0.3878	0.3726	0.2872	0.2172	0.1680
4.974	0.3798	0.3662	0.3653	0.3844	0.3734	0.2868	0.2160	0.1672
6.015	0.3926	0.3759	0.3740	0.3869	0.3719	0.2871	0.2167	0.1679
6.994	0.3906	0.3746	0.3727	0.3859	0.3714	0.2867	0.2166	0.1681
7.998	0.3914	0.3752	0.3732	0.3863	0.3711	0.2868	0.2168	0.1683
8.999	0.3883	0.3728	0.3709	0.3849	0.3711	0.2866	0.2164	0.1677
9.995	0.3899	0.3740	0.3722	0.3857	0.3710	0.2867	0.2166	0.1681

Table A33. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.995	0.3962	0.4044	0.4039	0.4113	0.4271	0.4497	0.4774
2.980	0.1860	0.1995	0.2112	0.2315	0.2589	0.2886	0.3169
4.001	0.1507	0.1466	0.1586	0.1923	0.2202	0.2781	0.2532
4.998	0.1497	0.1456	0.1563	0.1877	0.2196	0.2745	0.2483
5.997	0.1494	0.1464	0.1560	0.1868	0.2193	0.2745	0.2482
6.996	0.1494	0.1471	0.1535	0.1849	0.2197	0.2730	0.2484
7.994	0.1501	0.1476	0.1518	0.1837	0.2204	0.2714	0.2488
8.998	0.1512	0.1487	0.1511	0.1809	0.2198	0.2671	0.2481
10.007	0.1510	0.1485	0.1513	0.1816	0.2199	0.2672	0.2479
				$\omega\sqrt{\tau}$ = 0.02			
1.989	0.4276	0.4262	0.4234	0.4282	0.4409	0.4588	0.4851
3.002	0.1915	0.1976	0.2095	0.2180	0.2451	0.2852	0.3234
4.005	0.1743	0.1807	0.1916	0.1945	0.1998	0.2558	0.2443
5.011	0.1769	0.1839	0.1995	0.1944	0.1997	0.2378	0.2254
6.007	0.1770	0.1841	0.1986	0.1942	0.2011	0.2342	0.2194
6.989	0.1773	0.1843	0.1991	0.1952	0.2030	0.2281	0.2165
7.998	0.1778	0.1843	0.1989	0.1960	0.2038	0.2218	0.2133
9.002	0.1790	0.1854	0.2008	0.1979	0.2048	0.2160	0.2085
10.017	0.1793	0.1859	0.2020	0.1984	0.2051	0.2154	0.2062
				$\omega\sqrt{\tau}$ = 0.05			
1.982	0.4232	0.4509	0.4511	0.4561	0.4689	0.4791	0.4949
3.001	0.2094	0.2067	0.2556	0.2667	0.2795	0.2981	0.3239
4.003	0.2015	0.1797	0.2325	0.2195	0.1955	0.2512	0.2466
4.974	0.2031	0.1781	0.2326	0.2199	0.1951	0.2482	0.2278
5.986	0.1971	0.1818	0.2291	0.2167	0.1933	0.2443	0.2226
7.000	0.2013	0.1697	0.2327	0.2218	0.1982	0.2457	0.2226
7.997	0.1993	0.1727	0.2324	0.2215	0.1976	0.2447	0.2223
8.999	0.1982	0.1695	0.2314	0.2214	0.1994	0.2434	0.2202
10.006	0.1976	0.1711	0.2320	0.2218	0.1992	0.2434	0.2205
				$\omega\sqrt{\tau}$ = 0.08			
1.991	0.4012	0.4115	0.4500	0.4477	0.4541	0.4728	0.4946
3.000	0.2507	0.1559	0.2557	0.2644	0.2932	0.3126	0.3274
4.003	0.2513	0.1470	0.2507	0.2445	0.2420	0.2711	0.2456
4.974	0.2428	0.1437	0.2479	0.2394	0.2309	0.2672	0.2315
6.015	0.2494	0.1385	0.2511	0.2444	0.2400	0.2688	0.2308
6.994	0.2480	0.1439	0.2506	0.2455	0.2399	0.2678	0.2305
7.998	0.2483	0.1208	0.2523	0.2467	0.2417	0.2672	0.2299
8.999	0.2463	0.1062	0.2540	0.2465	0.2396	0.2666	0.2289
9.995	0.2471	0.1061	0.2533	0.2472	0.2413	0.2662	0.2287

Table A33. Concluded

(c) Side surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.995	0.4034	0.4025	0.4525	0.4847		0.4566	0.4722
2.980	0.1971	0.1954	0.2735	0.2905		0.2649	0.2463
4.001	0.1464	0.1474	0.3000	0.2673		0.1693	0.1644
4.998	0.1466	0.1480	0.2989	0.2680		0.1705	0.1424
5.997	0.1466	0.1483	0.2980	0.2675		0.1684	0.1416
6.996	0.1462	0.1481	0.2955	0.2667		0.1681	0.1417
7.994	0.1479	0.1490	0.2950	0.2663		0.1687	0.1419
8.998	0.1492	0.1505	0.2938	0.2656		0.1699	0.1428
10.007	0.1484	0.1498	0.2937	0.2662		0.1685	0.1414
				$\omega\sqrt{\tau}$ = 0.02			
1.989	0.4283	0.4291	0.4679	0.5008		0.4688	0.4760
3.002	0.2144	0.2169	0.2403	0.2534		0.1922	0.3236
4.005	0.2031	0.2059	0.2472	0.2571		0.1801	0.1710
5.011	0.2190	0.2220	0.2376	0.2491		0.1814	0.1856
6.007	0.2165	0.2194	0.2405	0.2502		0.1789	0.1802
6.989	0.2162	0.2191	0.2409	0.2475		0.1779	0.1840
7.998	0.2146	0.2167	0.2355	0.2486		0.1777	0.1852
9.002	0.2167	0.2190	0.2337	0.2476		0.1776	0.1951
10.017	0.2193	0.2216	0.2340	0.2465		0.1774	0.2000
				$\omega\sqrt{\tau}$ = 0.05			
1.982	0.4642	0.4641	0.4648	0.5255		0.4924	0.4839
3.001	0.2826	0.2936	0.2604	0.2292		0.2539	0.3261
4.003	0.2806	0.2925	0.2587	0.2267		0.1796	0.2301
4.974	0.2822	0.2942	0.2604	0.2275		0.1799	0.2250
5.986	0.2760	0.2866	0.2560	0.2276		0.1791	0.2284
7.000	0.2809	0.2928	0.2585	0.2262		0.1784	0.2250
7.997	0.2787	0.2900	0.2565	0.2242		0.1772	0.2262
8.999	0.2778	0.2890	0.2560	0.2241		0.1779	0.2249
10.006	0.2774	0.2883	0.2551	0.2241		0.1763	0.2242
				$\omega\sqrt{\tau}$ = 0.08			
1.991	0.4608	0.4685	0.4710	0.4918		0.4881	0.4858
3.000	0.3174	0.3490	0.2886	0.2400		0.2718	0.3250
4.003	0.3164	0.3486	0.2884	0.2406		0.1800	0.2387
4.974	0.3109	0.3383	0.2836	0.2379		0.1794	0.2200
6.015	0.3149	0.3463	0.2872	0.2399		0.1795	0.2217
6.994	0.3141	0.3449	0.2860	0.2385		0.1789	0.2223
7.998	0.3133	0.3450	0.2860	0.2382		0.1785	0.2231
8.999	0.3118	0.3429	0.2844	0.2370		0.1771	0.2225
9.995	0.3124	0.3446	0.2850	0.2373		0.1773	0.2230

Table A34. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 3

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.47\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00 x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.019	0.3917	0.3988	0.3935	0.3990	0.5537	0.5592	0.4856	0.4289
3.005	0.2087	0.2105	0.2093	0.4514	0.3825	0.2895	0.2227	0.2610
3.993	0.1593	0.1622	0.1551	0.5203	0.3556	0.2686	0.2019	0.1547
5.012	0.1471	0.1469	0.1404	0.5056	0.3517	0.2673	0.2008	0.1537
5.991	0.1477	0.1470	0.1398	0.5072	0.3504	0.2671	0.2005	0.1536
6.990	0.1481	0.1475	0.1403	0.5075	0.3500	0.2671	0.2004	0.1534
8.013	0.1477	0.1472	0.1398	0.5067	0.3496	0.2669	0.2002	0.1533
9.004	0.1477	0.1475	0.1398	0.5066	0.3494	0.2668	0.2000	0.1528
9.977	0.1484	0.1481	0.1407	0.5072	0.3493	0.2668	0.2000	0.1528
				$\omega\sqrt{\tau}$ = 0.02				
1.998	0.4471	0.4449	0.4458	0.4441	0.5826	0.5763	0.5229	0.4529
4.009	0.2385	0.2375	0.2382	0.3985	0.3799	0.2811	0.2089	0.1601
4.984	0.2308	0.2301	0.2301	0.4127	0.3785	0.2799	0.2076	0.1585
6.027	0.2346	0.2338	0.2338	0.4079	0.3774	0.2805	0.2083	0.1595
7.997	0.2298	0.2291	0.2291	0.4177	0.3760	0.2794	0.2078	0.1587
8.999	0.2387	0.2378	0.2380	0.4031	0.3768	0.2809	0.2089	0.1595
9.970	0.2284	0.2276	0.2277	0.4197	0.3760	0.2789	0.2077	0.1587
				$\omega\sqrt{\tau}$ = 0.05				
1.994	0.4804	0.4735	0.4741	0.4774	0.5494	0.5550	0.5219	0.4699
3.000	0.3383	0.3305	0.3333	0.3395	0.3866	0.3069	0.2389	0.1978
3.999	0.3206	0.3146	0.3164	0.3325	0.3781	0.2901	0.2176	0.1674
4.992	0.3220	0.3157	0.3171	0.3347	0.3769	0.2901	0.2175	0.1675
5.988	0.3229	0.3163	0.3178	0.3365	0.3760	0.2899	0.2176	0.1674
6.990	0.3194	0.3132	0.3148	0.3377	0.3756	0.2895	0.2173	0.1672
8.004	0.3210	0.3146	0.3161	0.3387	0.3749	0.2896	0.2172	0.1670
9.003	0.3224	0.3157	0.3174	0.3398	0.3746	0.2894	0.2174	0.1676
10.013	0.3181	0.3120	0.3135	0.3402	0.3745	0.2892	0.2169	0.1670
				$\omega\sqrt{\tau}$ = 0.08				
1.990	0.5078	0.4879	0.4907	0.4968	0.5215	0.5227	0.5108	0.4696
2.994	0.4013	0.3784	0.3797	0.3823	0.3649	0.2915	0.2223	0.2878
4.005	0.3988	0.3772	0.3773	0.3807	0.3649	0.2917	0.2223	0.1724
4.996	0.3980	0.3763	0.3765	0.3803	0.3648	0.2918	0.2221	0.1725
6.003	0.4002	0.3775	0.3778	0.3815	0.3639	0.2917	0.2222	0.1725
6.972	0.3973	0.3752	0.3756	0.3794	0.3639	0.2918	0.2219	0.1721
8.995	0.3964	0.3749	0.3750	0.3792	0.3639	0.2915	0.2217	0.1722
10.001	0.4003	0.3774	0.3775	0.3815	0.3633	0.2916	0.2221	0.1726

Table A34. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.019	0.3811	0.3949	0.3938	0.4007	0.4165	0.4408	0.4688
3.005	0.1984	0.2124	0.2218	0.2399	0.2617	0.2851	0.3125
3.993	0.1577	0.1556	0.1620	0.1896	0.1871	0.2680	0.2577
5.012	0.1482	0.1427	0.1614	0.1924	0.1919	0.2774	0.2544
5.991	0.1483	0.1421	0.1573	0.1868	0.1945	0.2738	0.2552
6.990	0.1487	0.1427	0.1553	0.1842	0.1965	0.2708	0.2549
8.013	0.1481	0.1424	0.1552	0.1841	0.1963	0.2710	0.2551
9.004	0.1480	0.1437	0.1552	0.1850	0.1963	0.2701	0.2548
9.977	0.1485	0.1452	0.1531	0.1823	0.1990	0.2660	0.2541
				$\omega\sqrt{\tau} = 0.02$			
1.998	0.4381	0.4383	0.4355	0.4377	0.4479	0.4623	0.4860
4.009	0.1858	0.1803	0.2055	0.2003	0.1723	0.2240	0.2484
4.984	0.1831	0.1795	0.2022	0.1981	0.1734	0.2199	0.2364
6.027	0.1833	0.1786	0.2028	0.1964	0.1743	0.2149	0.2277
7.997	0.1822	0.1792	0.2009	0.1945	0.1759	0.2136	0.2228
8.999	0.1842	0.1797	0.2045	0.1976	0.1764	0.2104	0.2205
9.970	0.1818	0.1797	0.2002	0.1932	0.1782	0.2104	0.2162
				$\omega\sqrt{\tau} = 0.05$			
1.994	0.4252	0.4401	0.4435	0.4437	0.4551	0.4714	0.4910
3.000	0.2568	0.2416	0.2855	0.2862	0.2877	0.2930	0.3114
3.999	0.2251	0.1687	0.2342	0.2241	0.1921	0.2141	0.2507
4.992	0.2253	0.1655	0.2338	0.2248	0.1934	0.2090	0.2357
5.988	0.2253	0.1613	0.2339	0.2263	0.1951	0.2099	0.2320
6.990	0.2226	0.1584	0.2336	0.2266	0.1956	0.2077	0.2299
8.004	0.2231	0.1576	0.2348	0.2277	0.1966	0.2076	0.2300
9.003	0.2241	0.1549	0.2344	0.2276	0.1969	0.2105	0.2285
10.013	0.2210	0.1556	0.2341	0.2274	0.1967	0.2065	0.2272
				$\omega\sqrt{\tau} = 0.08$			
1.990	0.4174	0.4062	0.4482	0.4451	0.4505	0.4639	0.4896
2.994	0.2807	0.1642	0.2504	0.2655	0.2891	0.3127	0.3298
4.005	0.2781	0.1430	0.2475	0.2446	0.2308	0.2663	0.2450
4.996	0.2768	0.1510	0.2436	0.2447	0.2307	0.2648	0.2358
6.003	0.2772	0.1647	0.2404	0.2463	0.2342	0.2647	0.2355
6.972	0.2750	0.1712	0.2391	0.2463	0.2330	0.2632	0.2349
8.995	0.2741	0.1575	0.2417	0.2465	0.2330	0.2620	0.2341
10.001	0.2765	0.1559	0.2420	0.2478	0.2370	0.2625	0.2342

Table A34. Concluded

(c) Side surface

	$\omega\sqrt{\tau} = 0.00$						
	x/L						
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.019	0.3910	0.3948	0.4336	0.4782		0.4490	0.4680
3.005	0.2090	0.2106	0.2629	0.2804		0.2962	0.2762
3.993	0.1583	0.1606	0.2716	0.2694		0.1738	0.1511
5.012	0.1446	0.1473	0.2867	0.2691		0.1706	0.1419
5.991	0.1461	0.1484	0.2839	0.2694		0.1722	0.1431
6.990	0.1467	0.1484	0.2835	0.2690		0.1720	0.1436
8.013	0.1458	0.1480	0.2832	0.2687		0.1718	0.1434
9.004	0.1463	0.1480	0.2825	0.2675		0.1708	0.1427
9.977	0.1471	0.1484	0.2795	0.2670		0.1708	0.1436
	$\omega\sqrt{\tau} = 0.02$						
1.998	0.4444	0.4450	0.4572	0.5171		0.4782	0.4755
4.009	0.2307	0.2333	0.2319	0.2340		0.1799	0.1784
4.984	0.2236	0.2258	0.2304	0.2366		0.1794	0.1618
6.027	0.2269	0.2288	0.2306	0.2356		0.1809	0.1631
7.997	0.2228	0.2242	0.2298	0.2366		0.1791	0.1593
8.999	0.2301	0.2320	0.2291	0.2326		0.1778	0.1633
9.970	0.2216	0.2228	0.2267	0.2344		0.1769	0.1577
	$\omega\sqrt{\tau} = 0.05$						
1.994	0.4627	0.4642	0.4664	0.5067		0.4853	0.4834
3.000	0.3081	0.3166	0.2920	0.2697		0.3302	0.3203
3.999	0.2869	0.2979	0.2652	0.2275		0.1740	0.2347
4.992	0.2875	0.2982	0.2655	0.2275		0.1737	0.2107
5.988	0.2878	0.2982	0.2656	0.2276		0.1730	0.2082
6.990	0.2854	0.2954	0.2638	0.2265		0.1725	0.2081
8.004	0.2864	0.2966	0.2641	0.2263		0.1713	0.2075
9.003	0.2870	0.2971	0.2648	0.2265		0.1725	0.2076
10.013	0.2845	0.2940	0.2619	0.2239		0.1712	0.2077
	$\omega\sqrt{\tau} = 0.08$						
1.990	0.4623	0.4720	0.4737	0.4858		0.4841	0.4894
2.994	0.3196	0.3511	0.2939	0.2445		0.2950	0.3227
4.005	0.3184	0.3492	0.2923	0.2436		0.1769	0.2407
4.996	0.3178	0.3480	0.2917	0.2431		0.1767	0.2096
6.003	0.3182	0.3487	0.2919	0.2435		0.1760	0.2085
6.972	0.3166	0.3468	0.2905	0.2426		0.1748	0.2086
8.995	0.3160	0.3456	0.2899	0.2417		0.1746	0.2098
10.001	0.3166	0.3477	0.2910	0.2423		0.1751	0.2112

Table A35. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 4

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.99\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.3986	0.4041	0.3984	0.3986	0.5569	0.5644	0.4931	0.4444
3.001	0.1986	0.2001	0.1978	0.4473	0.3819	0.2883	0.2225	0.2641
4.004	0.1481	0.1455	0.1414	0.5188	0.3539	0.2688	0.2027	0.1555
5.003	0.1477	0.1469	0.1411	0.5190	0.3530	0.2687	0.2025	0.1555
5.993	0.1482	0.1478	0.1427	0.5182	0.3534	0.2686	0.2020	0.1547
7.004	0.1482	0.1478	0.1429	0.5180	0.3529	0.2685	0.2019	0.1545
7.995	0.1481	0.1476	0.1420	0.5177	0.3521	0.2684	0.2020	0.1547
8.996	0.1481	0.1473	0.1416	0.5177	0.3515	0.2685	0.2018	0.1544
10.001	0.1485	0.1481	0.1427	0.5169	0.3520	0.2685	0.2018	0.1543
				$\omega\sqrt{\tau}$ = 0.02				
2.001	0.4489	0.4477	0.4460	0.4442	0.5703	0.5784	0.5274	0.4560
2.990	0.2874	0.2849	0.2854	0.3277	0.4048	0.3170	0.2499	0.3199
3.995	0.2341	0.2342	0.2333	0.3746	0.3815	0.2833	0.2103	0.1614
4.996	0.2331	0.2324	0.2322	0.3774	0.3815	0.2834	0.2099	0.1607
6.006	0.2337	0.2332	0.2329	0.3775	0.3798	0.2835	0.2104	0.1611
6.999	0.2356	0.2350	0.2349	0.3757	0.3793	0.2836	0.2108	0.1611
7.999	0.2325	0.2318	0.2319	0.3819	0.3789	0.2830	0.2103	0.1608
9.006	0.2331	0.2325	0.2326	0.3808	0.3790	0.2830	0.2104	0.1608
10.004	0.2353	0.2345	0.2346	0.3779	0.3788	0.2833	0.2107	0.1611
				$\omega\sqrt{\tau}$ = 0.05				
1.995	0.4778	0.4698	0.4713	0.4744	0.5460	0.5603	0.5261	0.4639
3.004	0.3381	0.3303	0.3317	0.3351	0.3834	0.3085	0.2405	0.1987
3.998	0.3250	0.3180	0.3193	0.3243	0.3759	0.2923	0.2202	0.1696
5.001	0.3247	0.3177	0.3190	0.3250	0.3752	0.2927	0.2200	0.1693
6.013	0.3224	0.3157	0.3172	0.3247	0.3746	0.2920	0.2197	0.1692
7.003	0.3256	0.3186	0.3200	0.3270	0.3734	0.2922	0.2199	0.1693
8.017	0.3232	0.3163	0.3177	0.3264	0.3733	0.2920	0.2196	0.1690
9.006	0.3217	0.3149	0.3164	0.3265	0.3733	0.2914	0.2194	0.1691
9.995	0.3234	0.3162	0.3179	0.3275	0.3726	0.2915	0.2195	0.1691
				$\omega\sqrt{\tau}$ = 0.08				
1.992	0.5086	0.4892	0.4912	0.4964	0.5163	0.5249	0.5136	0.4698
3.007	0.4056	0.3808	0.3815	0.3823	0.3606	0.2924	0.2244	0.2836
3.995	0.4031	0.3791	0.3795	0.3811	0.3606	0.2924	0.2242	0.1742
4.995	0.4016	0.3775	0.3783	0.3801	0.3603	0.2928	0.2238	0.1737
6.000	0.4009	0.3770	0.3777	0.3796	0.3600	0.2927	0.2238	0.1737
7.000	0.3996	0.3762	0.3771	0.3790	0.3599	0.2925	0.2237	0.1740
7.993	0.3989	0.3756	0.3766	0.3788	0.3602	0.2927	0.2238	0.1741
9.001	0.4024	0.3780	0.3788	0.3808	0.3597	0.2925	0.2239	0.1744
10.012	0.3998	0.3760	0.3768	0.3792	0.3597	0.2926	0.2238	0.1743

Table A35. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.3856	0.4021	0.3993	0.4060	0.4216	0.4460	0.4735
3.001	0.1836	0.2086	0.2207	0.2401	0.2621	0.2849	0.3116
4.004	0.1485	0.1419	0.1649	0.1950	0.1840	0.2755	0.2597
5.003	0.1482	0.1416	0.1624	0.1924	0.1847	0.2742	0.2580
5.993	0.1486	0.1417	0.1612	0.1910	0.1859	0.2712	0.2583
7.004	0.1486	0.1416	0.1592	0.1882	0.1864	0.2684	0.2580
7.995	0.1483	0.1416	0.1582	0.1873	0.1860	0.2688	0.2581
8.996	0.1481	0.1419	0.1579	0.1871	0.1867	0.2673	0.2580
10.001	0.1483	0.1434	0.1562	0.1848	0.1876	0.2637	0.2566
				$\omega\sqrt{\tau}$ = 0.02			
2.001	0.4389	0.4380	0.4343	0.4358	0.4456	0.4607	0.4850
2.990	0.2775	0.2780	0.2739	0.2729	0.2763	0.2881	0.3152
3.995	0.1869	0.1764	0.2035	0.1996	0.1728	0.2001	0.2534
4.996	0.1861	0.1779	0.2030	0.2006	0.1734	0.1896	0.2399
6.006	0.1859	0.1764	0.2025	0.1977	0.1742	0.1960	0.2318
6.999	0.1861	0.1765	0.2028	0.1976	0.1747	0.1953	0.2275
7.999	0.1848	0.1766	0.2014	0.1962	0.1741	0.1980	0.2264
9.006	0.1853	0.1771	0.2019	0.1967	0.1750	0.1966	0.2237
10.004	0.1858	0.1773	0.2027	0.1972	0.1755	0.1951	0.2219
				$\omega\sqrt{\tau}$ = 0.05			
1.995	0.4396	0.4429	0.4406	0.4406	0.4511	0.4673	0.4903
3.004	0.2620	0.2388	0.2805	0.2807	0.2833	0.2900	0.3100
3.998	0.2354	0.1657	0.2339	0.2251	0.1935	0.1895	0.2513
5.001	0.2342	0.1646	0.2335	0.2255	0.1942	0.1838	0.2375
6.013	0.2323	0.1579	0.2331	0.2270	0.1959	0.1837	0.2337
7.003	0.2344	0.1526	0.2350	0.2288	0.1980	0.1891	0.2314
8.017	0.2327	0.1524	0.2348	0.2289	0.1979	0.1861	0.2309
9.006	0.2313	0.1515	0.2340	0.2283	0.1977	0.1860	0.2297
9.995	0.2322	0.1488	0.2355	0.2296	0.1991	0.1887	0.2281
				$\omega\sqrt{\tau}$ = 0.08			
1.992	0.4257	0.4088	0.4472	0.4438	0.4495	0.4622	0.4884
3.007	0.2925	0.1615	0.2483	0.2630	0.2870	0.3147	0.3302
3.995	0.2897	0.1430	0.2454	0.2453	0.2311	0.2651	0.2450
4.995	0.2881	0.1440	0.2444	0.2455	0.2298	0.2643	0.2370
6.000	0.2879	0.1634	0.2387	0.2464	0.2317	0.2632	0.2368
7.000	0.2867	0.1698	0.2355	0.2459	0.2324	0.2616	0.2364
7.993	0.2860	0.1603	0.2370	0.2455	0.2319	0.2609	0.2361
9.001	0.2879	0.1591	0.2373	0.2467	0.2358	0.2613	0.2362
10.012	0.2859	0.1554	0.2380	0.2462	0.2344	0.2599	0.2352

Table A35. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$ x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.3965	0.4021	0.4471	0.4823		0.4562	0.4740
3.001	0.1986	0.2003	0.2735	0.2837		0.2844	0.2750
4.004	0.1459	0.1493	0.2854	0.2680		0.1706	0.1536
5.003	0.1462	0.1487	0.2848	0.2682		0.1715	0.1425
5.993	0.1464	0.1475	0.2843	0.2687		0.1701	0.1412
7.004	0.1463	0.1471	0.2834	0.2683		0.1699	0.1414
7.995	0.1463	0.1468	0.2837	0.2678		0.1703	0.1420
8.996	0.1468	0.1470	0.2827	0.2670		0.1700	0.1419
10.001	0.1469	0.1472	0.2807	0.2664		0.1699	0.1425
				$\omega\sqrt{\tau} = 0.02$			
2.001	0.4462	0.4413	0.4623	0.5141		0.4753	0.4752
2.990	0.2800	0.2803	0.2828	0.3055		0.3322	0.3085
3.995	0.2275	0.2283	0.2355	0.2358		0.1788	0.1687
4.996	0.2262	0.2265	0.2354	0.2355		0.1774	0.1587
6.006	0.2265	0.2274	0.2349	0.2362		0.1787	0.1572
6.999	0.2283	0.2290	0.2338	0.2353		0.1778	0.1569
7.999	0.2256	0.2263	0.2341	0.2363		0.1778	0.1564
9.006	0.2262	0.2268	0.2323	0.2342		0.1755	0.1551
10.004	0.2279	0.2288	0.2308	0.2323		0.1746	0.1551
				$\omega\sqrt{\tau} = 0.05$			
1.995	0.4630	0.4610	0.4659	0.5083		0.4812	0.4812
3.004	0.3076	0.3158	0.2921	0.2682		0.3245	0.3222
3.998	0.2906	0.3003	0.2685	0.2294		0.1718	0.2356
5.001	0.2902	0.2994	0.2680	0.2290		0.1710	0.2028
6.013	0.2883	0.2978	0.2670	0.2287		0.1708	0.1987
7.003	0.2899	0.3002	0.2679	0.2286		0.1697	0.1977
8.017	0.2885	0.2983	0.2667	0.2279		0.1693	0.1971
9.006	0.2874	0.2967	0.2658	0.2271		0.1698	0.1979
9.995	0.2881	0.2977	0.2658	0.2261		0.1690	0.2001
				$\omega\sqrt{\tau} = 0.08$			
1.992	0.4645	0.4706	0.4746	0.4867		0.4836	0.4877
3.007	0.3206	0.3534	0.2960	0.2459		0.2918	0.3216
3.995	0.3197	0.3504	0.2943	0.2448		0.1755	0.2418
4.995	0.3190	0.3493	0.2934	0.2444		0.1743	0.2068
6.000	0.3182	0.3489	0.2928	0.2441		0.1736	0.2044
7.000	0.3170	0.3482	0.2923	0.2435		0.1739	0.2051
7.993	0.3169	0.3471	0.2921	0.2435		0.1739	0.2044
9.001	0.3171	0.3493	0.2929	0.2438		0.1742	0.2057
10.012	0.3162	0.3474	0.2919	0.2431		0.1735	0.2047

Table A36. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 5

$\left[\text{Top surface only; dry power; } A_t = 3.50 \text{ in}^2;\ A_e/A_t = 1.76;\ A_{ej}/A_t = 0.42;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

			$\omega\sqrt{\tau} = 0.00$					
			x/L					
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.997	0.3935	0.3921		0.3951	0.4024	0.4241	0.4541	0.4840
3.003	0.1446	0.1459		0.1454	0.1994	0.1768	0.1935	0.3139
4.011	0.1231	0.1246		0.1327	0.2139	0.1778	0.1457	0.2058
4.998	0.1053	0.1069		0.1441	0.2202	0.1766	0.1461	0.1259
5.995	0.0973	0.0986		0.1546	0.2218	0.1768	0.1463	0.1260
6.997	0.0967	0.0976		0.1564	0.2216	0.1762	0.1468	0.1275
8.016	0.0962	0.0969		0.1558	0.2225	0.1773	0.1461	0.1254
8.997	0.0959	0.0967		0.1576	0.2219	0.1769	0.1465	0.1268
10.001	0.0956	0.0962		0.1572	0.2225	0.1774	0.1463	0.1259
			$\omega\sqrt{\tau} = 0.04$					
1.996	0.4372	0.4296		0.4397	0.4396	0.4472	0.4641	0.4872
3.002	0.2873	0.2796		0.2845	0.2834	0.2866	0.3017	0.3217
4.003	0.2063	0.1895		0.1946	0.1849	0.1711	0.1493	0.2235
5.002	0.2077	0.1910		0.1951	0.1851	0.1708	0.1494	0.1320
5.979	0.2051	0.1894		0.1933	0.1841	0.1707	0.1489	0.1299
6.993	0.2043	0.1891		0.1929	0.1841	0.1707	0.1491	0.1307
8.030	0.2054	0.1892		0.1934	0.1844	0.1707	0.1486	0.1294
8.993	0.2035	0.1883		0.1922	0.1838	0.1709	0.1486	0.1292
10.000	0.2034	0.1881		0.1921	0.1837	0.1707	0.1489	0.1301
			$\omega\sqrt{\tau} = 0.10$					
2.005	0.4777	0.4439		0.4684	0.4701	0.4701	0.4732	0.4895
2.999	0.3299	0.2712		0.3068	0.3141	0.3173	0.3182	0.3277
3.994	0.2812	0.2087		0.2329	0.2093	0.1831	0.2124	0.2424
5.012	0.2803	0.2092		0.2325	0.2089	0.1819	0.1585	0.1692
5.994	0.2799	0.2092		0.2324	0.2089	0.1816	0.1581	0.1413
7.017	0.2786	0.2084		0.2319	0.2085	0.1811	0.1573	0.1401
8.018	0.2790	0.2085		0.2321	0.2086	0.1813	0.1580	0.1408
9.012	0.2792	0.2081		0.2323	0.2087	0.1811	0.1573	0.1401
9.999	0.2792	0.2078		0.2322	0.2087	0.1812	0.1573	0.1398
			$\omega\sqrt{\tau} = 0.16$					
2.007	0.5057	0.4134		0.4779	0.4838	0.4874	0.4897	0.4945
3.001	0.3685	0.2060		0.2827	0.2967	0.3207	0.3274	0.3321
3.996	0.3614	0.1955		0.2603	0.2283	0.1958	0.1710	0.2434
5.007	0.3600	0.2010		0.2602	0.2281	0.1953	0.1707	0.1562
6.006	0.3603	0.2068		0.2610	0.2282	0.1949	0.1698	0.1537
7.011	0.3598	0.2068		0.2604	0.2278	0.1949	0.1702	0.1535
7.991	0.3603	0.2048		0.2604	0.2278	0.1948	0.1697	0.1532
9.011	0.3605	0.2019		0.2606	0.2278	0.1945	0.1691	0.1530
9.991	0.3612	0.1996		0.2607	0.2279	0.1945	0.1692	0.1528

Table A37. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 6

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4320	0.4320	0.4320	0.4327	0.5052	0.5738	0.5442	0.4817
2.995	0.2483	0.2500	0.2489	0.2502	0.3995	0.3127	0.2491	0.2101
4.004	0.1223	0.1234	0.1177	0.5072	0.3441	0.2566	0.1944	0.1453
5.012	0.1163	0.1170	0.1101	0.5161	0.3407	0.2555	0.1939	0.1449
6.005	0.1167	0.1167	0.1101	0.5165	0.3403	0.2554	0.1939	0.1450
6.998	0.1171	0.1166	0.1100	0.5166	0.3400	0.2552	0.1940	0.1450
7.993	0.1175	0.1173	0.1113	0.5153	0.3407	0.2556	0.1945	0.1447
9.008	0.1174	0.1168	0.1105	0.5155	0.3403	0.2554	0.1945	0.1447
10.004	0.1173	0.1165	0.1101	0.5149	0.3403	0.2555	0.1946	0.1449
				$\omega\sqrt{\tau}$ = 0.04				
2.005	0.4713	0.4694	0.4682	0.4700	0.5222	0.5960	0.5695	0.4965
2.997	0.3051	0.3022	0.3004	0.3032	0.3767	0.3227	0.2868	0.4661
4.001	0.2148	0.2135	0.2133	0.2433	0.3803	0.2800	0.2086	0.1547
4.999	0.2109	0.2098	0.2095	0.2465	0.3806	0.2793	0.2078	0.1541
5.999	0.2077	0.2067	0.2067	0.2486	0.3799	0.2785	0.2070	0.1531
7.005	0.2081	0.2072	0.2071	0.2488	0.3792	0.2783	0.2071	0.1534
7.995	0.2094	0.2084	0.2083	0.2495	0.3787	0.2783	0.2076	0.1541
8.998	0.2088	0.2076	0.2076	0.2513	0.3781	0.2778	0.2076	0.1542
10.007	0.2091	0.2079	0.2078	0.2517	0.3781	0.2782	0.2077	0.1541
				$\omega\sqrt{\tau}$ = 0.10				
1.990	0.5020	0.4940	0.4886	0.4963	0.5109	0.5617	0.5563	0.5033
2.993	0.3510	0.3404	0.3347	0.3407	0.3519	0.3169	0.3452	0.4359
4.002	0.3010	0.2931	0.2909	0.2973	0.3481	0.2856	0.2194	0.1656
4.996	0.3006	0.2928	0.2913	0.2971	0.3487	0.2859	0.2196	0.1655
6.004	0.3020	0.2938	0.2933	0.2984	0.3473	0.2850	0.2193	0.1652
7.007	0.2994	0.2913	0.2912	0.2960	0.3483	0.2846	0.2190	0.1651
7.992	0.2993	0.2913	0.2911	0.2959	0.3481	0.2845	0.2192	0.1652
9.003	0.2996	0.2914	0.2914	0.2960	0.3476	0.2844	0.2192	0.1653
10.004	0.2993	0.2912	0.2911	0.2959	0.3479	0.2847	0.2192	0.1652
				$\omega\sqrt{\tau}$ = 0.16				
2.004	0.5293	0.5104	0.4993	0.5119	0.5135	0.5268	0.5270	0.4952
2.990	0.3897	0.3645	0.3558	0.3592	0.3332	0.2821	0.2243	0.2927
4.001	0.3872	0.3626	0.3559	0.3580	0.3328	0.2815	0.2240	0.1729
4.999	0.3865	0.3618	0.3551	0.3579	0.3333	0.2817	0.2238	0.1729
6.003	0.3866	0.3618	0.3544	0.3576	0.3327	0.2813	0.2238	0.1724
7.008	0.3860	0.3611	0.3538	0.3572	0.3326	0.2811	0.2238	0.1730
7.997	0.3857	0.3607	0.3534	0.3570	0.3324	0.2812	0.2240	0.1729
9.004	0.3853	0.3602	0.3531	0.3568	0.3324	0.2811	0.2240	0.1729
10.008	0.3853	0.3604	0.3530	0.3568	0.3323	0.2812	0.2240	0.1728

Table A37. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4275	0.4276	0.4286	0.4292	0.4380	0.4607	0.4663
2.995	0.2276	0.2463	0.2560	0.2625	0.2748	0.2936	0.3009
4.004	0.1231	0.1213	0.1272	0.1472	0.1564	0.1547	0.2393
5.012	0.1175	0.1159	0.1244	0.1472	0.1574	0.1568	0.2184
6.005	0.1173	0.1158	0.1232	0.1450	0.1557	0.1575	0.2139
6.998	0.1172	0.1158	0.1216	0.1413	0.1531	0.1593	0.2130
7.993	0.1176	0.1162	0.1204	0.1384	0.1507	0.1617	0.2105
9.008	0.1175	0.1160	0.1198	0.1373	0.1505	0.1621	0.2107
10.004	0.1173	0.1160	0.1190	0.1360	0.1500	0.1625	0.2118
				$\omega\sqrt{\tau} = 0.04$			
2.005	0.4658	0.4648	0.4648	0.4633	0.4647	0.4724	0.4846
2.997	0.2984	0.2988	0.2985	0.2961	0.2952	0.3005	0.3123
4.001	0.1898	0.1902	0.1987	0.1987	0.2030	0.2167	0.2383
4.999	0.1794	0.1773	0.1827	0.1711	0.1542	0.1688	0.1917
5.999	0.1782	0.1762	0.1805	0.1693	0.1483	0.1275	0.1562
7.005	0.1782	0.1763	0.1808	0.1693	0.1485	0.1277	0.1232
7.995	0.1788	0.1767	0.1817	0.1693	0.1485	0.1280	0.1130
8.998	0.1789	0.1769	0.1815	0.1695	0.1489	0.1284	0.1117
10.007	0.1790	0.1771	0.1817	0.1699	0.1492	0.1286	0.1117
				$\omega\sqrt{\tau} = 0.10$			
1.990	0.4695	0.4683	0.4705	0.4701	0.4735	0.4789	0.4952
2.993	0.3089	0.3067	0.3078	0.3080	0.3097	0.3126	0.3200
4.002	0.2215	0.1897	0.2236	0.2065	0.1971	0.2332	0.2466
4.996	0.2210	0.1919	0.2211	0.2037	0.1737	0.1496	0.1837
6.004	0.2214	0.1882	0.2222	0.2053	0.1751	0.1508	0.1352
7.007	0.2195	0.1848	0.2221	0.2054	0.1754	0.1506	0.1335
7.992	0.2195	0.1849	0.2231	0.2067	0.1767	0.1516	0.1340
9.003	0.2195	0.1849	0.2232	0.2068	0.1768	0.1518	0.1342
10.004	0.2193	0.1853	0.2232	0.2068	0.1769	0.1518	0.1343
				$\omega\sqrt{\tau} = 0.16$			
2.004	0.4650	0.4599	0.4648	0.4659	0.4721	0.4786	0.4891
2.990	0.2805	0.1690	0.2831	0.3040	0.3210	0.3291	0.3324
4.001	0.2791	0.1478	0.2442	0.2310	0.2028	0.2222	0.2406
4.999	0.2781	0.1424	0.2441	0.2307	0.2024	0.2053	0.2092
6.003	0.2780	0.1358	0.2456	0.2315	0.2032	0.2052	0.2060
7.008	0.2777	0.1332	0.2447	0.2330	0.2044	0.2071	0.2022
7.997	0.2777	0.1301	0.2459	0.2343	0.2057	0.2067	0.2012
9.004	0.2773	0.1283	0.2463	0.2344	0.2057	0.2061	0.2005
10.008	0.2775	0.1279	0.2472	0.2345	0.2058	0.2058	0.2008

Table A37. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4316	0.4321	0.4333	0.4718		0.4689	0.4781
2.995	0.2465	0.2469	0.2473	0.2732		0.3187	0.3184
4.004	0.1208	0.1221	0.2017	0.2535		0.1602	0.2070
5.012	0.1140	0.1161	0.2141	0.2546		0.1580	0.1300
6.005	0.1141	0.1165	0.2172	0.2527		0.1568	0.1297
6.998	0.1146	0.1171	0.2140	0.2505		0.1568	0.1304
7.993	0.1151	0.1167	0.2092	0.2515		0.1567	0.1299
9.008	0.1154	0.1171	0.2072	0.2515		0.1567	0.1302
10.004	0.1151	0.1168	0.2069	0.2523		0.1572	0.1307
				$\omega\sqrt{\tau} = 0.04$			
2.005	0.4670	0.4691	0.4628	0.5081		0.4948	0.4844
2.997	0.2965	0.2992	0.2971	0.3025		0.3554	0.3286
4.001	0.2051	0.2089	0.1988	0.1947		0.1780	0.2220
4.999	0.2013	0.2048	0.1950	0.1951		0.1667	0.1513
5.999	0.1989	0.2021	0.1929	0.1970		0.1654	0.1483
7.005	0.1993	0.2025	0.1924	0.1959		0.1641	0.1469
7.995	0.2004	0.2033	0.1935	0.1915		0.1638	0.1482
8.998	0.2000	0.2027	0.1929	0.1903		0.1633	0.1473
10.007	0.2003	0.2028	0.1932	0.1887		0.1642	0.1469
				$\omega\sqrt{\tau} = 0.10$			
1.990	0.4799	0.4860	0.4850	0.4864		0.5117	0.4946
2.993	0.3203	0.3293	0.3168	0.3183		0.3405	0.3344
4.002	0.2642	0.2770	0.2442	0.2104		0.1629	0.2374
4.996	0.2641	0.2767	0.2442	0.2101		0.1600	0.1799
6.004	0.2644	0.2771	0.2448	0.2100		0.1595	0.1747
7.007	0.2625	0.2750	0.2432	0.2083		0.1587	0.1745
7.992	0.2623	0.2747	0.2426	0.2073		0.1575	0.1745
9.003	0.2624	0.2746	0.2425	0.2071		0.1571	0.1742
10.004	0.2623	0.2744	0.2425	0.2070		0.1570	0.1747
				$\omega\sqrt{\tau} = 0.16$			
2.004	0.4849	0.4961	0.4913	0.4909		0.4992	0.4951
2.990	0.3071	0.3396	0.2828	0.2553		0.3248	0.3323
4.001	0.3046	0.3379	0.2789	0.2331		0.1732	0.2465
4.999	0.3041	0.3364	0.2785	0.2324		0.1728	0.1930
6.003	0.3037	0.3362	0.2790	0.2331		0.1727	0.1842
7.008	0.3030	0.3353	0.2788	0.2322		0.1724	0.1824
7.997	0.3023	0.3348	0.2783	0.2317		0.1717	0.1819
9.004	0.3020	0.3340	0.2781	0.2311		0.1714	0.1821
10.008	0.3019	0.3341	0.2780	0.2313		0.1712	0.1817

Table A38. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 7

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 1.95\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.001	0.4221	0.4243	0.4227	0.4235	0.4263	0.5220	0.5608	0.5140
2.990	0.2171	0.2194	0.2179	0.2167	0.3340	0.3225	0.2620	0.3329
4.005	0.1261	0.1263	0.1258	0.1503	0.3957	0.2738	0.2098	0.1592
4.993	0.1150	0.1152	0.1139	0.1670	0.3728	0.2693	0.2077	0.1579
6.004	0.1151	0.1157	0.1139	0.1657	0.3742	0.2692	0.2081	0.1581
7.018	0.1152	0.1154	0.1139	0.1638	0.3732	0.2692	0.2079	0.1576
7.991	0.1160	0.1162	0.1147	0.1617	0.3750	0.2697	0.2084	0.1575
9.005	0.1164	0.1162	0.1148	0.1623	0.3769	0.2697	0.2086	0.1577
9.996	0.1162	0.1162	0.1146	0.1625	0.3762	0.2696	0.2082	0.1573
				$\omega\sqrt{\tau}$ = 0.04				
2.002	0.4576	0.4561	0.4553	0.4561	0.4549	0.5313	0.5656	0.5156
2.998	0.3028	0.2988	0.2957	0.2982	0.2999	0.3205	0.3470	0.4066
3.992	0.2236	0.2211	0.2203	0.2221	0.3018	0.2935	0.2293	0.1733
6.004	0.2206	0.2185	0.2179	0.2194	0.3063	0.2931	0.2290	0.1726
6.993	0.2210	0.2189	0.2184	0.2199	0.3060	0.2927	0.2293	0.1728
8.002	0.2212	0.2192	0.2187	0.2200	0.3059	0.2920	0.2288	0.1730
9.009	0.2227	0.2207	0.2202	0.2215	0.3048	0.2917	0.2290	0.1731
10.003	0.2215	0.2195	0.2192	0.2203	0.3056	0.2915	0.2288	0.1731
				$\omega\sqrt{\tau}$ = 0.10				
1.996	0.5051	0.4962	0.4911	0.4979	0.4989	0.5081	0.5335	0.5113
2.995	0.3444	0.3316	0.3259	0.3292	0.3187	0.3052	0.3277	0.3714
4.000	0.3134	0.3006	0.2969	0.2995	0.2899	0.2712	0.2287	0.1804
5.004	0.3127	0.3002	0.2978	0.2993	0.2901	0.2713	0.2283	0.1801
6.006	0.3121	0.2996	0.2975	0.2988	0.2898	0.2712	0.2282	0.1798
6.993	0.3123	0.2996	0.2978	0.2990	0.2899	0.2709	0.2282	0.1799
8.002	0.3137	0.3008	0.2987	0.3000	0.2905	0.2707	0.2282	0.1803
9.016	0.3142	0.3013	0.2992	0.3004	0.2908	0.2707	0.2283	0.1803
10.004	0.3137	0.3008	0.2987	0.3000	0.2904	0.2706	0.2283	0.1802
				$\omega\sqrt{\tau}$ = 0.16				
1.988	0.5375	0.5164	0.5070	0.5164	0.5132	0.5095	0.5078	0.5024
2.999	0.4038	0.3709	0.3598	0.3604	0.3267	0.2797	0.2358	0.3229
3.998	0.4018	0.3691	0.3602	0.3593	0.3260	0.2787	0.2287	0.1830
5.009	0.4002	0.3683	0.3594	0.3586	0.3257	0.2786	0.2283	0.1820
6.000	0.4003	0.3680	0.3592	0.3588	0.3259	0.2786	0.2285	0.1821
6.998	0.4003	0.3677	0.3588	0.3586	0.3257	0.2787	0.2286	0.1823
8.005	0.4000	0.3676	0.3585	0.3585	0.3255	0.2785	0.2286	0.1823
9.006	0.3993	0.3670	0.3580	0.3580	0.3253	0.2784	0.2285	0.1821
10.006	0.4001	0.3675	0.3586	0.3587	0.3258	0.2787	0.2288	0.1824

Table A38. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.001	0.4155	0.4266	0.4238	0.4260	0.4372	0.4602	0.4614
2.990	0.2030	0.2485	0.2509	0.2647	0.2818	0.2989	0.3011
4.005	0.1272	0.1234	0.1446	0.1794	0.1622	0.1238	0.2239
4.993	0.1151	0.1161	0.1424	0.1835	0.1615	0.1243	0.1601
6.004	0.1152	0.1155	0.1370	0.1783	0.1656	0.1279	0.1008
7.018	0.1153	0.1152	0.1355	0.1777	0.1663	0.1293	0.1014
7.991	0.1156	0.1154	0.1346	0.1727	0.1685	0.1312	0.1020
9.005	0.1157	0.1151	0.1339	0.1708	0.1686	0.1314	0.1021
9.996	0.1153	0.1151	0.1343	0.1721	0.1688	0.1315	0.1017
				$\omega\sqrt{\tau} = 0.04$			
2.002	0.4554	0.4528	0.4488	0.4477	0.4534	0.4693	0.4706
2.998	0.3001	0.2982	0.2945	0.2915	0.2934	0.3022	0.3074
3.992	0.2000	0.1658	0.1943	0.1890	0.1637	0.1683	0.2339
6.004	0.1979	0.1655	0.1905	0.1853	0.1604	0.1301	0.1096
6.993	0.1983	0.1665	0.1909	0.1859	0.1615	0.1315	0.1069
8.002	0.1983	0.1654	0.1902	0.1839	0.1607	0.1320	0.1077
9.009	0.1995	0.1660	0.1908	0.1844	0.1610	0.1322	0.1081
10.003	0.1989	0.1670	0.1908	0.1850	0.1617	0.1324	0.1079
				$\omega\sqrt{\tau} = 0.10$			
1.996	0.4847	0.4685	0.4679	0.4654	0.4672	0.4741	0.4840
2.995	0.3106	0.2638	0.3054	0.3036	0.3029	0.3071	0.3171
4.000	0.2718	0.1399	0.2215	0.2144	0.1809	0.1556	0.2403
5.004	0.2712	0.1346	0.2199	0.2143	0.1818	0.1532	0.1472
6.006	0.2708	0.1309	0.2192	0.2149	0.1825	0.1540	0.1368
6.993	0.2708	0.1349	0.2184	0.2166	0.1847	0.1554	0.1375
8.002	0.2719	0.1454	0.2137	0.2170	0.1866	0.1569	0.1388
9.016	0.2723	0.1427	0.2141	0.2170	0.1868	0.1572	0.1392
10.004	0.2720	0.1379	0.2161	0.2171	0.1867	0.1571	0.1389
				$\omega\sqrt{\tau} = 0.16$			
1.988	0.4906	0.4293	0.4751	0.4733	0.4747	0.4824	0.4917
2.999	0.3501	0.1848	0.2372	0.2776	0.3041	0.3309	0.3369
3.998	0.3481	0.1521	0.2148	0.2337	0.2064	0.2105	0.2315
5.009	0.3468	0.1486	0.2143	0.2329	0.2061	0.2080	0.2200
6.000	0.3468	0.1575	0.2083	0.2322	0.2077	0.2102	0.2187
6.998	0.3465	0.1639	0.2030	0.2312	0.2096	0.2122	0.2181
8.005	0.3466	0.1646	0.2033	0.2314	0.2109	0.2127	0.2171
9.006	0.3460	0.1593	0.2071	0.2323	0.2106	0.2113	0.2166
10.006	0.3468	0.1535	0.2088	0.2318	0.2103	0.2141	0.2165

Table A38. Concluded

(c) Side surface

	x/L						
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$			
2.001	0.4219	0.4211	0.4216	0.4745		0.4731	0.4812
2.990	0.2175	0.2165	0.2186	0.2643		0.3452	0.3207
4.005	0.1265	0.1262	0.1885	0.2223		0.1620	0.1953
4.993	0.1150	0.1152	0.2035	0.2296		0.1600	0.1314
6.004	0.1151	0.1155	0.2042	0.2291		0.1598	0.1326
7.018	0.1146	0.1155	0.2043	0.2275		0.1602	0.1324
7.991	0.1155	0.1161	0.2018	0.2274		0.1601	0.1319
9.005	0.1159	0.1167	0.1996	0.2281		0.1598	0.1324
9.996	0.1159	0.1165	0.1992	0.2287		0.1592	0.1314
				$\omega\sqrt{\tau} = 0.04$			
2.002	0.4542	0.4550	0.4538	0.4867		0.4860	0.4841
2.998	0.2932	0.2957	0.2931	0.2974		0.3441	0.3262
3.992	0.2144	0.2175	0.2083	0.1948		0.1478	0.2273
6.004	0.2123	0.2153	0.2067	0.1957		0.1475	0.1304
6.993	0.2127	0.2157	0.2069	0.1946		0.1467	0.1299
8.002	0.2129	0.2156	0.2069	0.1930		0.1460	0.1293
9.009	0.2145	0.2168	0.2079	0.1923		0.1459	0.1294
10.003	0.2135	0.2158	0.2072	0.1917		0.1453	0.1285
				$\omega\sqrt{\tau} = 0.10$			
1.996	0.4820	0.4889	0.4883	0.4901		0.5038	0.4937
2.995	0.3113	0.3209	0.3065	0.3071		0.3290	0.3333
4.000	0.2743	0.2880	0.2560	0.2197		0.2025	0.2419
5.004	0.2737	0.2871	0.2561	0.2198		0.1555	0.1876
6.006	0.2734	0.2865	0.2560	0.2197		0.1550	0.1431
6.993	0.2733	0.2865	0.2561	0.2192		0.1539	0.1396
8.002	0.2739	0.2872	0.2566	0.2192		0.1537	0.1393
9.016	0.2742	0.2873	0.2568	0.2192		0.1537	0.1395
10.004	0.2739	0.2866	0.2565	0.2190		0.1534	0.1394
				$\omega\sqrt{\tau} = 0.16$			
1.988	0.4878	0.5011	0.4956	0.4955		0.4989	0.4992
2.999	0.3110	0.3478	0.2894	0.2452		0.3160	0.3288
3.998	0.3090	0.3463	0.2880	0.2410		0.1706	0.2448
5.009	0.3079	0.3450	0.2877	0.2406		0.1703	0.1639
6.000	0.3081	0.3448	0.2881	0.2411		0.1702	0.1564
6.998	0.3077	0.3440	0.2884	0.2408		0.1699	0.1565
8.005	0.3074	0.3435	0.2884	0.2406		0.1689	0.1560
9.006	0.3067	0.3425	0.2881	0.2402		0.1686	0.1556
10.006	0.3070	0.3431	0.2885	0.2405		0.1691	0.1558

Table A39. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 8

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 2.96\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.4170	0.4247	0.4228	0.4212	0.4200	0.5029	0.5564	0.5205
3.009	0.1964	0.2007	0.2001	0.1983	0.2979	0.3224	0.2744	0.4277
4.012	0.1256	0.1279	0.1278	0.1218	0.3855	0.2858	0.2163	0.1648
4.999	0.1137	0.1162	0.1150	0.1165	0.4046	0.2768	0.2137	0.1639
5.993	0.1143	0.1160	0.1146	0.1158	0.4043	0.2767	0.2137	0.1637
7.026	0.1142	0.1154	0.1149	0.1154	0.4036	0.2767	0.2139	0.1638
8.012	0.1147	0.1158	0.1150	0.1146	0.4039	0.2768	0.2139	0.1633
9.005	0.1149	0.1158	0.1150	0.1148	0.4035	0.2771	0.2142	0.1633
9.998	0.1153	0.1161	0.1152	0.1153	0.4019	0.2773	0.2142	0.1632
				$\omega\sqrt{\tau}$ = 0.04				
2.015	0.4573	0.4614	0.4596	0.4604	0.4601	0.5011	0.5497	0.5166
2.995	0.2897	0.2866	0.2864	0.2880	0.2873	0.3050	0.3120	0.3846
3.997	0.2236	0.2231	0.2219	0.2239	0.2477	0.2870	0.2336	0.1793
5.003	0.2264	0.2258	0.2246	0.2263	0.2480	0.2858	0.2337	0.1794
6.016	0.2215	0.2209	0.2197	0.2215	0.2522	0.2868	0.2334	0.1787
6.994	0.2257	0.2247	0.2238	0.2253	0.2500	0.2847	0.2334	0.1791
8.018	0.2254	0.2241	0.2232	0.2246	0.2508	0.2847	0.2338	0.1794
9.004	0.2245	0.2229	0.2223	0.2236	0.2521	0.2846	0.2332	0.1790
9.998	0.2258	0.2240	0.2234	0.2246	0.2522	0.2845	0.2333	0.1792
				$\omega\sqrt{\tau}$ = 0.10				
2.004	0.5007	0.4971	0.4915	0.4964	0.4962	0.4968	0.5092	0.5030
2.990	0.3523	0.3404	0.3348	0.3365	0.3245	0.3116	0.3207	0.3442
3.998	0.3156	0.3042	0.2999	0.3006	0.2871	0.2623	0.2257	0.1824
4.995	0.3190	0.3064	0.3027	0.3029	0.2888	0.2627	0.2253	0.1818
6.009	0.3173	0.3047	0.3013	0.3015	0.2879	0.2626	0.2255	0.1818
7.005	0.3138	0.3016	0.2985	0.2989	0.2862	0.2621	0.2256	0.1818
8.014	0.3184	0.3050	0.3018	0.3022	0.2885	0.2627	0.2255	0.1820
9.000	0.3177	0.3041	0.3009	0.3013	0.2876	0.2623	0.2253	0.1819
9.997	0.3178	0.3041	0.3008	0.3015	0.2880	0.2626	0.2255	0.1819
				$\omega\sqrt{\tau}$ = 0.16				
1.993	0.5427	0.5252	0.5163	0.5224	0.5157	0.5081	0.5021	0.4985
3.005	0.4115	0.3803	0.3676	0.3673	0.3330	0.2881	0.2528	0.3237
3.999	0.4067	0.3744	0.3629	0.3623	0.3275	0.2801	0.2305	0.1850
5.000	0.4063	0.3736	0.3626	0.3618	0.3272	0.2799	0.2302	0.1837
6.008	0.4111	0.3769	0.3654	0.3649	0.3291	0.2808	0.2307	0.1839
7.000	0.4079	0.3744	0.3631	0.3627	0.3277	0.2800	0.2304	0.1838
8.011	0.4056	0.3723	0.3615	0.3613	0.3268	0.2797	0.2304	0.1839
8.998	0.4077	0.3736	0.3624	0.3625	0.3276	0.2802	0.2306	0.1841
9.995	0.4071	0.3730	0.3620	0.3622	0.3274	0.2800	0.2306	0.1841

Table A39. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.4189	0.4347	0.4273	0.4294	0.4401	0.4621	0.4626
3.009	0.1903	0.2557	0.2501	0.2645	0.2812	0.2978	0.3006
4.012	0.1289	0.1266	0.1603	0.1980	0.1628	0.1211	0.2275
4.999	0.1160	0.1192	0.1551	0.1977	0.1652	0.1232	0.1710
5.993	0.1156	0.1190	0.1511	0.1962	0.1688	0.1252	0.0956
7.026	0.1155	0.1187	0.1472	0.1945	0.1721	0.1273	0.0960
8.012	0.1156	0.1188	0.1464	0.1942	0.1746	0.1285	0.0962
9.005	0.1157	0.1187	0.1461	0.1935	0.1749	0.1283	0.0959
9.998	0.1162	0.1188	0.1454	0.1927	0.1751	0.1281	0.0956
				$\omega\sqrt{\tau} = 0.04$			
2.015	0.4634	0.4562	0.4511	0.4502	0.4545	0.4690	0.4683
2.995	0.2927	0.2890	0.2832	0.2838	0.2899	0.3017	0.3057
3.997	0.2148	0.1565	0.1944	0.2025	0.1664	0.1299	0.2300
5.003	0.2172	0.1567	0.1952	0.2036	0.1663	0.1298	0.1634
6.016	0.2123	0.1533	0.1911	0.1994	0.1689	0.1313	0.1046
6.994	0.2154	0.1510	0.1922	0.2017	0.1704	0.1331	0.1060
8.018	0.2148	0.1494	0.1918	0.2019	0.1731	0.1348	0.1066
9.004	0.2137	0.1497	0.1911	0.2010	0.1731	0.1348	0.1064
9.998	0.2144	0.1500	0.1918	0.2014	0.1736	0.1353	0.1068
				$\omega\sqrt{\tau} = 0.10$			
2.004	0.4983	0.4625	0.4563	0.4552	0.4605	0.4721	0.4772
2.990	0.3426	0.2844	0.2906	0.2880	0.2905	0.2985	0.3124
3.998	0.3006	0.1367	0.2133	0.2188	0.1842	0.1528	0.2248
4.995	0.3032	0.1257	0.2149	0.2186	0.1843	0.1541	0.1386
6.009	0.3012	0.1225	0.2123	0.2187	0.1855	0.1546	0.1378
7.005	0.2975	0.1433	0.2043	0.2202	0.1888	0.1556	0.1365
8.014	0.3016	0.1530	0.2010	0.2216	0.1917	0.1581	0.1391
9.000	0.3005	0.1497	0.2025	0.2222	0.1918	0.1580	0.1389
9.997	0.3003	0.1459	0.2026	0.2221	0.1921	0.1582	0.1388
				$\omega\sqrt{\tau} = 0.16$			
1.993	0.5307	0.4572	0.4459	0.4469	0.4591	0.4752	0.4867
3.005	0.3933	0.1936	0.2432	0.2675	0.2942	0.3273	0.3338
3.999	0.3876	0.1197	0.2180	0.2337	0.2050	0.2088	0.2316
5.000	0.3866	0.1152	0.2177	0.2340	0.2052	0.2082	0.2287
6.008	0.3909	0.1263	0.2109	0.2360	0.2093	0.2210	0.2303
7.000	0.3874	0.1390	0.2038	0.2357	0.2111	0.2153	0.2289
8.011	0.3850	0.1474	0.1991	0.2336	0.2130	0.2148	0.2263
8.998	0.3863	0.1457	0.1997	0.2341	0.2140	0.2192	0.2269
9.995	0.3857	0.1031	0.2060	0.2360	0.2138	0.2165	0.2281

Table A39. Concluded

(c) Side surface

NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$			
1.999	0.4194	0.4159	0.4189	0.4749		0.4779	0.4813
3.009	0.1998	0.1966	0.2026	0.2665		0.3805	0.3158
4.012	0.1281	0.1262	0.1819	0.2197		0.1628	0.1880
4.999	0.1159	0.1147	0.1962	0.2233		0.1620	0.1331
5.993	0.1158	0.1147	0.1981	0.2235		0.1619	0.1336
7.026	0.1152	0.1150	0.1999	0.2224		0.1623	0.1336
8.012	0.1154	0.1151	0.1990	0.2212		0.1625	0.1327
9.005	0.1154	0.1153	0.1966	0.2210		0.1617	0.1323
9.998	0.1159	0.1158	0.1945	0.2232		0.1616	0.1326
				$\omega\sqrt{\tau} = 0.04$			
2.015	0.4580	0.4560	0.4580	0.4833		0.4870	0.4802
2.995	0.2828	0.2834	0.2810	0.2838		0.3290	0.3422
3.997	0.2172	0.2182	0.2113	0.1966		0.1447	0.2277
5.003	0.2194	0.2208	0.2129	0.1970		0.1452	0.1508
6.016	0.2151	0.2164	0.2097	0.1971		0.1450	0.1249
6.994	0.2185	0.2198	0.2124	0.1973		0.1444	0.1246
8.018	0.2180	0.2194	0.2116	0.1945		0.1434	0.1237
9.004	0.2171	0.2184	0.2109	0.1938		0.1430	0.1234
9.998	0.2178	0.2197	0.2117	0.1942		0.1429	0.1232
				$\omega\sqrt{\tau} = 0.10$			
2.004	0.4802	0.4846	0.4849	0.4834		0.4927	0.4910
2.990	0.3176	0.3258	0.3112	0.3065		0.3284	0.3338
3.998	0.2761	0.2880	0.2588	0.2223		0.2030	0.2434
4.995	0.2770	0.2901	0.2600	0.2230		0.1566	0.1870
6.009	0.2762	0.2886	0.2595	0.2228		0.1561	0.1377
7.005	0.2742	0.2860	0.2582	0.2218		0.1549	0.1337
8.014	0.2761	0.2885	0.2600	0.2225		0.1553	0.1338
9.000	0.2755	0.2878	0.2593	0.2219		0.1544	0.1332
9.997	0.2755	0.2879	0.2596	0.2220		0.1546	0.1335
				$\omega\sqrt{\tau} = 0.16$			
1.993	0.4926	0.5034	0.4973	0.4901		0.4899	0.4959
3.005	0.3163	0.3509	0.2995	0.2596		0.3099	0.3256
3.999	0.3087	0.3455	0.2893	0.2425		0.1706	0.2417
5.000	0.3078	0.3446	0.2891	0.2424		0.1703	0.1549
6.008	0.3081	0.3471	0.2906	0.2434		0.1707	0.1509
7.000	0.3071	0.3445	0.2899	0.2428		0.1699	0.1499
8.011	0.3060	0.3425	0.2895	0.2425		0.1695	0.1486
8.998	0.3060	0.3433	0.2901	0.2425		0.1695	0.1485
9.995	0.3056	0.3431	0.2899	0.2422		0.1692	0.1482

Column heading for the x/L values: x/L

Table A40. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 9

$\left[\text{Top surface only; dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.002	0.4240	0.4287	0.4310	0.4290	0.4266	0.4339	0.4539	0.4790
3.019	0.2503	0.2541	0.2518	0.2496	0.2466	0.2676	0.2929	0.3162
3.997	0.0805	0.0819	0.0820	0.0982	0.2094	0.1663	0.1382	0.2177
4.991	0.0802	0.0814	0.0814	0.0971	0.2104	0.1660	0.1380	0.1150
5.987	0.0798	0.0808	0.0806	0.0976	0.2101	0.1656	0.1383	0.1162
7.003	0.0795	0.0802	0.0799	0.0978	0.2102	0.1650	0.1383	0.1166
8.010	0.0792	0.0796	0.0793	0.0972	0.2110	0.1659	0.1379	0.1152
8.991	0.0790	0.0793	0.0790	0.0978	0.2105	0.1652	0.1383	0.1163
9.981	0.0794	0.0790	0.0786	0.0966	0.2112	0.1657	0.1382	0.1155
				$\omega\sqrt{\tau} = 0.06$				
1.995	0.4671	0.4578	0.4624	0.4632	0.4619	0.4599	0.4672	0.4857
2.979	0.3198	0.3053	0.3124	0.3143	0.3147	0.3137	0.3130	0.3253
4.003	0.2279	0.2060	0.2179	0.2201	0.2216	0.2221	0.2277	0.2414
4.985	0.1927	0.1693	0.1802	0.1785	0.1692	0.1546	0.1387	0.1797
5.996	0.1931	0.1706	0.1804	0.1786	0.1693	0.1544	0.1382	0.1230
6.988	0.1919	0.1694	0.1796	0.1780	0.1688	0.1542	0.1384	0.1204
8.007	0.1908	0.1692	0.1789	0.1773	0.1684	0.1540	0.1381	0.1195
8.978	0.1911	0.1695	0.1791	0.1775	0.1685	0.1540	0.1383	0.1200
10.007	0.1908	0.1688	0.1790	0.1773	0.1685	0.1540	0.1380	0.1194
				$\omega\sqrt{\tau} = 0.15$				
1.994	0.5032	0.4577	0.4801	0.4880	0.4892	0.4903	0.4932	0.4966
2.991	0.3472	0.2764	0.3100	0.3222	0.3278	0.3309	0.3324	0.3337
4.005	0.2794	0.1773	0.2246	0.2269	0.2144	0.2232	0.2425	0.2485
4.999	0.2749	0.1704	0.2202	0.2211	0.1996	0.1742	0.1531	0.1891
6.002	0.2756	0.1708	0.2203	0.2215	0.1998	0.1740	0.1529	0.1362
6.988	0.2750	0.1712	0.2202	0.2213	0.1995	0.1739	0.1530	0.1335
8.010	0.2734	0.1724	0.2197	0.2207	0.1992	0.1735	0.1526	0.1330
8.992	0.2733	0.1728	0.2193	0.2206	0.1990	0.1734	0.1525	0.1327
9.988	0.2734	0.1727	0.2192	0.2207	0.1992	0.1733	0.1522	0.1323
				$\omega\sqrt{\tau} = 0.21$				
3.014	0.3640	0.2026	0.2799	0.3032	0.3142	0.3247	0.3295	0.3313
3.997	0.3493	0.1655	0.2150	0.2399	0.2158	0.1861	0.1695	0.2432
5.005	0.3494	0.1642	0.2138	0.2404	0.2155	0.1858	0.1635	0.1555
5.996	0.3520	0.1630	0.2121	0.2409	0.2160	0.1855	0.1630	0.1438
7.004	0.3471	0.1615	0.2136	0.2394	0.2149	0.1850	0.1629	0.1434
8.006	0.3494	0.1604	0.2119	0.2398	0.2152	0.1850	0.1627	0.1433
8.983	0.3495	0.1601	0.2104	0.2405	0.2153	0.1848	0.1624	0.1430
9.999	0.3495	0.1551	0.2125	0.2403	0.2149	0.1848	0.1628	0.1433

Table A41. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 10

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.4442	0.4492	0.4461	0.4482	0.4497	0.5361	0.5578	0.5058
2.989	0.2569	0.2588	0.2581	0.2607	0.3225	0.3164	0.2593	0.2327
3.996	0.1130	0.1140	0.1131	0.2382	0.3467	0.2523	0.1869	0.1411
5.005	0.1020	0.1020	0.0999	0.3049	0.3324	0.2485	0.1853	0.1402
5.993	0.0973	0.0972	0.0926	0.3554	0.3269	0.2471	0.1846	0.1399
6.994	0.0978	0.0970	0.0932	0.3492	0.3272	0.2471	0.1851	0.1402
7.983	0.0979	0.0975	0.0935	0.3527	0.3270	0.2473	0.1851	0.1399
9.024	0.0976	0.0970	0.0928	0.3534	0.3267	0.2470	0.1850	0.1399
9.986	0.0976	0.0968	0.0924	0.3547	0.3267	0.2470	0.1851	0.1400
				$\omega\sqrt{\tau} = 0.06$				
1.980	0.4858	0.4842	0.4848	0.4868	0.4871	0.5640	0.5811	0.5219
2.991	0.3169	0.3136	0.3113	0.3140	0.3164	0.3306	0.3897	0.4084
4.028	0.2150	0.2124	0.2129	0.2149	0.3372	0.2832	0.2105	0.1587
4.985	0.1986	0.1966	0.1969	0.1952	0.3523	0.2809	0.2063	0.1538
5.969	0.1963	0.1943	0.1946	0.1919	0.3534	0.2806	0.2058	0.1533
7.005	0.1966	0.1946	0.1946	0.1920	0.3520	0.2807	0.2059	0.1534
7.989	0.1983	0.1963	0.1963	0.1937	0.3503	0.2806	0.2063	0.1540
9.023	0.1986	0.1961	0.1963	0.1929	0.3502	0.2799	0.2062	0.1542
10.005	0.1974	0.1950	0.1951	0.1914	0.3507	0.2795	0.2056	0.1539
				$\omega\sqrt{\tau} = 0.15$				
1.966	0.5157	0.5082	0.5022	0.5108	0.5129	0.5353	0.5588	0.5223
2.986	0.3570	0.3447	0.3330	0.3413	0.3325	0.3287	0.3834	0.3792
3.998	0.2925	0.2808	0.2742	0.2824	0.2834	0.2720	0.2144	0.1658
4.982	0.2921	0.2804	0.2749	0.2813	0.2839	0.2717	0.2140	0.1657
6.011	0.2929	0.2810	0.2766	0.2817	0.2843	0.2714	0.2139	0.1657
7.004	0.2915	0.2799	0.2759	0.2805	0.2838	0.2713	0.2141	0.1656
8.014	0.2935	0.2808	0.2773	0.2819	0.2843	0.2708	0.2141	0.1661
9.012	0.2923	0.2803	0.2764	0.2809	0.2840	0.2711	0.2142	0.1659
10.003	0.2911	0.2796	0.2755	0.2802	0.2841	0.2714	0.2140	0.1658
				$\omega\sqrt{\tau} = 0.21$				
2.000	0.5287	0.5133	0.4985	0.5139	0.5147	0.5174	0.5268	0.5062
3.007	0.3836	0.3599	0.3395	0.3514	0.3303	0.3014	0.3295	0.3650
3.998	0.3505	0.3270	0.3129	0.3213	0.3027	0.2646	0.2139	0.1693
4.983	0.3503	0.3271	0.3147	0.3208	0.3026	0.2645	0.2136	0.1695
6.002	0.3500	0.3269	0.3147	0.3203	0.3023	0.2644	0.2135	0.1693
7.003	0.3499	0.3265	0.3142	0.3202	0.3022	0.2643	0.2136	0.1695
8.003	0.3504	0.3267	0.3142	0.3206	0.3025	0.2645	0.2137	0.1699
9.004	0.3511	0.3273	0.3144	0.3211	0.3025	0.2643	0.2136	0.1698
10.020	0.3513	0.3272	0.3141	0.3213	0.3027	0.2645	0.2137	0.1700

Table A41. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.4339	0.4395	0.4417	0.4434	0.4521	0.4676	0.4623
2.989	0.2182	0.2533	0.2595	0.2680	0.2818	0.2998	0.2979
3.996	0.1150	0.1118	0.1130	0.1227	0.1530	0.1909	0.2324
5.005	0.1040	0.1013	0.1042	0.1167	0.1331	0.1230	0.1675
5.993	0.0983	0.0966	0.1009	0.1168	0.1362	0.1262	0.1334
6.994	0.0981	0.0962	0.1004	0.1121	0.1325	0.1228	0.1347
7.983	0.0976	0.0972	0.1008	0.1133	0.1322	0.1240	0.1341
9.024	0.0971	0.0969	0.1002	0.1124	0.1328	0.1237	0.1349
9.986	0.0972	0.0967	0.0998	0.1120	0.1334	0.1238	0.1355
				$\omega\sqrt{\tau}$ = 0.06			
1.980	0.4845	0.4816	0.4807	0.4805	0.4812	0.4879	0.4884
2.991	0.3127	0.3119	0.3108	0.3093	0.3089	0.3130	0.3141
4.028	0.1911	0.1985	0.2045	0.2062	0.2089	0.2216	0.2391
4.985	0.1541	0.1733	0.1759	0.1733	0.1775	0.1832	0.1913
5.969	0.1471	0.1689	0.1686	0.1575	0.1392	0.1362	0.1629
7.005	0.1470	0.1694	0.1692	0.1574	0.1386	0.1183	0.1300
7.989	0.1466	0.1707	0.1704	0.1582	0.1391	0.1187	0.1054
9.023	0.1458	0.1711	0.1704	0.1578	0.1385	0.1182	0.0993
10.005	0.1455	0.1707	0.1699	0.1578	0.1387	0.1185	0.0992
				$\omega\sqrt{\tau}$ = 0.15			
1.966	0.4849	0.4887	0.4913	0.4914	0.4909	0.4927	0.4995
2.986	0.3043	0.3165	0.3192	0.3199	0.3211	0.3228	0.3257
3.998	0.1470	0.2005	0.2214	0.2175	0.2266	0.2425	0.2495
4.982	0.1283	0.1973	0.2132	0.1949	0.1674	0.1434	0.1900
6.011	0.1175	0.1974	0.2141	0.1959	0.1684	0.1440	0.1292
7.004	0.1129	0.1982	0.2143	0.1962	0.1689	0.1446	0.1254
8.014	0.1090	0.1989	0.2151	0.1970	0.1697	0.1453	0.1260
9.012	0.1076	0.1994	0.2148	0.1966	0.1693	0.1450	0.1257
10.003	0.1063	0.1995	0.2143	0.1961	0.1689	0.1446	0.1253
				$\omega\sqrt{\tau}$ = 0.21			
2.000	0.4610	0.4775	0.4829	0.4834	0.4850	0.4873	0.4919
3.007	0.2634	0.2976	0.3084	0.3132	0.3178	0.3225	0.3273
3.998	0.1112	0.2032	0.2320	0.2143	0.1873	0.2162	0.2478
4.983	0.1110	0.2018	0.2322	0.2140	0.1853	0.1627	0.1666
6.002	0.1105	0.2003	0.2339	0.2154	0.1862	0.1634	0.1494
7.003	0.1099	0.1967	0.2358	0.2169	0.1875	0.1644	0.1502
8.003	0.1096	0.1946	0.2360	0.2170	0.1877	0.1646	0.1505
9.004	0.1100	0.1950	0.2367	0.2176	0.1882	0.1653	0.1511
10.020	0.1095	0.1946	0.2367	0.2176	0.1882	0.1653	0.1512

Table A41. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.4458	0.4460	0.4460	0.4672		0.4715	0.4809
2.989	0.2528	0.2549	0.2545	0.2578		0.3142	0.3267
3.996	0.1138	0.1137	0.1282	0.2073		0.1526	0.2237
5.005	0.1014	0.1020	0.1457	0.2222		0.1484	0.1204
5.993	0.0946	0.0963	0.1532	0.2286		0.1468	0.1189
6.994	0.0960	0.0968	0.1369	0.2314		0.1476	0.1204
7.983	0.0962	0.0962	0.1306	0.2347		0.1473	0.1195
9.024	0.0963	0.0963	0.1301	0.2350		0.1470	0.1193
9.986	0.0961	0.0962	0.1303	0.2354		0.1470	0.1196
				$\omega\sqrt{\tau} = 0.06$			
1.980	0.4856	0.4817	0.4853	0.4971		0.4995	0.4949
2.991	0.3098	0.3097	0.3120	0.3125		0.3450	0.3273
4.028	0.2026	0.2044	0.2000	0.1936		0.2186	0.2348
4.985	0.1858	0.1882	0.1812	0.1684		0.1467	0.1493
5.969	0.1838	0.1859	0.1787	0.1662		0.1428	0.1305
7.005	0.1842	0.1857	0.1784	0.1648		0.1418	0.1299
7.989	0.1857	0.1873	0.1794	0.1640		0.1410	0.1299
9.023	0.1859	0.1877	0.1796	0.1642		0.1406	0.1299
10.005	0.1851	0.1866	0.1788	0.1633		0.1404	0.1295
				$\omega\sqrt{\tau} = 0.15$			
1.966	0.4918	0.4944	0.5014	0.4999		0.5178	0.5072
2.986	0.3212	0.3262	0.3279	0.3297		0.3373	0.3335
3.998	0.2440	0.2524	0.2330	0.2043		0.2345	0.2461
4.982	0.2437	0.2518	0.2318	0.2018		0.1523	0.1922
6.011	0.2439	0.2518	0.2321	0.2017		0.1520	0.1546
7.004	0.2431	0.2507	0.2309	0.2002		0.1508	0.1450
8.014	0.2436	0.2517	0.2313	0.2002		0.1508	0.1440
9.012	0.2430	0.2510	0.2307	0.1997		0.1506	0.1439
10.003	0.2424	0.2498	0.2302	0.1993		0.1501	0.1436
				$\omega\sqrt{\tau} = 0.21$			
2.000	0.4831	0.4908	0.4990	0.4975		0.5020	0.4999
3.007	0.3117	0.3250	0.3181	0.3168		0.3352	0.3310
3.998	0.2667	0.2840	0.2564	0.2190		0.2028	0.2473
4.983	0.2673	0.2837	0.2564	0.2190		0.1644	0.1905
6.002	0.2675	0.2829	0.2560	0.2182		0.1636	0.1625
7.003	0.2670	0.2825	0.2554	0.2174		0.1632	0.1602
8.003	0.2669	0.2825	0.2555	0.2173		0.1632	0.1595
9.004	0.2670	0.2830	0.2555	0.2173		0.1630	0.1598
10.020	0.2671	0.2823	0.2557	0.2173		0.1630	0.1597

Table A42. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 11

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 2.50\right]$

(a) Top surface

	$\omega\sqrt{\tau}$ = 0.00							
	x/L							
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.002	0.4384	0.4371	0.4371	0.4397	0.4376	0.4706	0.5260	0.5170
3.001	0.1451	0.1453	0.1450	0.1473	0.3197	0.2885	0.2103	0.2980
3.995	0.1165	0.1159	0.1160	0.1137	0.3687	0.2734	0.2001	0.1526
5.006	0.1035	0.1046	0.1026	0.1015	0.3953	0.2612	0.1966	0.1516
6.013	0.0959	0.0954	0.0941	0.0988	0.3758	0.2571	0.1956	0.1510
6.997	0.0966	0.0968	0.0950	0.0973	0.3779	0.2572	0.1956	0.1509
8.006	0.0968	0.0965	0.0952	0.0960	0.3775	0.2576	0.1956	0.1508
9.003	0.0967	0.0965	0.0951	0.0954	0.3775	0.2576	0.1955	0.1507
10.024	0.0966	0.0959	0.0950	0.0951	0.3778	0.2576	0.1954	0.1506
	$\omega\sqrt{\tau}$ = 0.06							
1.994	0.4813	0.4788	0.4778	0.4804	0.4806	0.4930	0.5367	0.5216
2.990	0.3129	0.3089	0.3063	0.3090	0.3063	0.3100	0.3355	0.3608
3.999	0.2086	0.2060	0.2052	0.2087	0.2192	0.2756	0.2224	0.1719
5.008	0.2025	0.2001	0.1996	0.2016	0.2218	0.2776	0.2217	0.1707
5.998	0.2018	0.1995	0.1990	0.2002	0.2239	0.2773	0.2211	0.1705
7.013	0.2058	0.2035	0.2028	0.2038	0.2222	0.2749	0.2212	0.1712
7.993	0.2038	0.2015	0.2010	0.2017	0.2239	0.2754	0.2209	0.1709
8.994	0.2040	0.2019	0.2013	0.2018	0.2242	0.2751	0.2208	0.1709
9.984	0.2032	0.2013	0.2007	0.2010	0.2252	0.2755	0.2208	0.1708
	$\omega\sqrt{\tau}$ = 0.15							
1.988	0.5132	0.5051	0.4984	0.5054	0.5052	0.5056	0.5131	0.5117
3.023	0.3471	0.3349	0.3255	0.3314	0.3245	0.3211	0.3317	0.3433
4.006	0.2953	0.2827	0.2739	0.2787	0.2684	0.2476	0.2139	0.1765
5.003	0.2953	0.2829	0.2741	0.2779	0.2684	0.2473	0.2134	0.1746
5.999	0.2969	0.2847	0.2758	0.2788	0.2693	0.2476	0.2133	0.1745
6.986	0.2961	0.2839	0.2751	0.2782	0.2691	0.2476	0.2135	0.1747
7.994	0.2939	0.2822	0.2734	0.2766	0.2678	0.2471	0.2134	0.1747
8.995	0.2940	0.2820	0.2735	0.2768	0.2680	0.2473	0.2136	0.1749
9.994	0.2937	0.2816	0.2732	0.2766	0.2677	0.2471	0.2135	0.1748
	$\omega\sqrt{\tau}$ = 0.21							
2.003	0.5237	0.5091	0.4976	0.5082	0.5070	0.5053	0.5029	0.5007
3.014	0.3642	0.3414	0.3212	0.3301	0.3095	0.2882	0.3037	0.3300
4.006	0.3561	0.3326	0.3138	0.3200	0.2977	0.2607	0.2173	0.1996
5.004	0.3562	0.3330	0.3139	0.3195	0.2977	0.2606	0.2170	0.1763
6.000	0.3536	0.3308	0.3122	0.3177	0.2965	0.2600	0.2167	0.1761
7.000	0.3539	0.3314	0.3121	0.3179	0.2967	0.2601	0.2168	0.1764
7.995	0.3553	0.3322	0.3127	0.3189	0.2973	0.2604	0.2170	0.1765
9.012	0.3542	0.3313	0.3119	0.3183	0.2968	0.2602	0.2169	0.1764
10.023	0.3553	0.3324	0.3124	0.3192	0.2974	0.2605	0.2171	0.1765

Table A42. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.002	0.4049	0.4359	0.4350	0.4376	0.4489	0.4646	0.4595
3.001	0.1432	0.1401	0.1489	0.1904	0.2417	0.2838	0.3192
3.995	0.1156	0.1148	0.1175	0.1467	0.1533	0.1404	0.2315
5.006	0.1031	0.1014	0.1127	0.1476	0.1511	0.1176	0.1700
6.013	0.0944	0.0951	0.1077	0.1462	0.1536	0.1205	0.0925
6.997	0.0953	0.0955	0.1067	0.1427	0.1550	0.1238	0.0944
8.006	0.0956	0.0957	0.1063	0.1407	0.1550	0.1244	0.0948
9.003	0.0956	0.0958	0.1061	0.1402	0.1551	0.1244	0.0948
10.024	0.0951	0.0956	0.1059	0.1401	0.1550	0.1244	0.0947
				$\omega\sqrt{\tau} = 0.06$			
1.994	0.4798	0.4757	0.4694	0.4694	0.4739	0.4816	0.4787
2.990	0.3098	0.3098	0.3057	0.3031	0.3035	0.3102	0.3096
3.999	0.1604	0.1801	0.1901	0.1910	0.1977	0.2170	0.2420
5.008	0.1481	0.1696	0.1765	0.1681	0.1521	0.1585	0.1872
5.998	0.1467	0.1684	0.1760	0.1659	0.1449	0.1206	0.1535
7.013	0.1463	0.1698	0.1785	0.1671	0.1454	0.1211	0.1164
7.993	0.1466	0.1693	0.1776	0.1661	0.1447	0.1207	0.0996
8.994	0.1468	0.1697	0.1779	0.1665	0.1451	0.1209	0.0995
9.984	0.1468	0.1696	0.1775	0.1661	0.1448	0.1207	0.0992
				$\omega\sqrt{\tau} = 0.15$			
1.988	0.4754	0.4854	0.4845	0.4809	0.4822	0.4889	0.4900
3.023	0.2505	0.2984	0.3135	0.3121	0.3121	0.3145	0.3183
4.006	0.1367	0.1699	0.2147	0.2064	0.2066	0.2357	0.2487
5.003	0.1363	0.1695	0.2133	0.2012	0.1706	0.1432	0.1825
5.999	0.1355	0.1652	0.2139	0.2019	0.1714	0.1441	0.1253
6.986	0.1346	0.1575	0.2154	0.2033	0.1727	0.1451	0.1253
7.994	0.1337	0.1585	0.2155	0.2034	0.1727	0.1449	0.1249
8.995	0.1335	0.1573	0.2151	0.2030	0.1724	0.1447	0.1248
9.994	0.1335	0.1582	0.2154	0.2033	0.1727	0.1449	0.1249
				$\omega\sqrt{\tau} = 0.21$			
2.003	0.4128	0.4640	0.4805	0.4783	0.4803	0.4855	0.4905
3.014	0.1669	0.2274	0.2883	0.3085	0.3201	0.3266	0.3299
4.006	0.1607	0.1158	0.2270	0.2173	0.1865	0.1737	0.2443
5.004	0.1594	0.1167	0.2265	0.2172	0.1866	0.1630	0.1567
6.000	0.1577	0.1165	0.2261	0.2176	0.1866	0.1627	0.1511
7.000	0.1574	0.1182	0.2213	0.2203	0.1885	0.1641	0.1516
7.995	0.1578	0.1193	0.2180	0.2215	0.1896	0.1652	0.1529
9.012	0.1574	0.1202	0.2171	0.2217	0.1897	0.1650	0.1522
10.023	0.1578	0.1213	0.2159	0.2222	0.1902	0.1655	0.1530

Table A42. Concluded

(c) Side surface

NPR	x/L = -0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$			
2.002	0.4354	0.4360	0.4346	0.4649		0.4715	0.4830
3.001	0.1444	0.1443	0.1438	0.1785		0.2571	0.3268
3.995	0.1163	0.1163	0.1228	0.1954		0.1548	0.2203
5.006	0.1032	0.1034	0.1260	0.2044		0.1524	0.1229
6.013	0.0954	0.0960	0.1336	0.2109		0.1502	0.1218
6.997	0.0960	0.0963	0.1292	0.2096		0.1495	0.1216
8.006	0.0961	0.0966	0.1263	0.2098		0.1503	0.1219
9.003	0.0962	0.0965	0.1253	0.2104		0.1502	0.1218
10.024	0.0960	0.0965	0.1268	0.2101		0.1500	0.1215
				$\omega\sqrt{\tau} = 0.06$			
1.994	0.4756	0.4779	0.4778	0.4842		0.4923	0.4905
2.990	0.3032	0.3065	0.3053	0.3048		0.3323	0.3336
3.999	0.1965	0.2002	0.1936	0.1807		0.2091	0.2362
5.008	0.1916	0.1945	0.1882	0.1743		0.1355	0.1744
5.998	0.1913	0.1938	0.1874	0.1740		0.1355	0.1185
7.013	0.1949	0.1969	0.1900	0.1746		0.1340	0.1173
7.993	0.1935	0.1954	0.1887	0.1735		0.1336	0.1169
8.994	0.1938	0.1954	0.1888	0.1735		0.1335	0.1112
9.984	0.1933	0.1948	0.1884	0.1733		0.1334	0.1002
				$\omega\sqrt{\tau} = 0.15$			
1.988	0.4883	0.4946	0.4979	0.4975		0.5061	0.5001
3.023	0.3099	0.3166	0.3170	0.3192		0.3295	0.3298
4.006	0.2486	0.2580	0.2397	0.2090		0.2356	0.2469
5.003	0.2490	0.2576	0.2393	0.2082		0.1510	0.1947
5.999	0.2501	0.2581	0.2402	0.2088		0.1514	0.1444
6.986	0.2496	0.2574	0.2395	0.2078		0.1502	0.1320
7.994	0.2483	0.2558	0.2384	0.2068		0.1493	0.1311
8.995	0.2483	0.2558	0.2386	0.2071		0.1495	0.1112
9.994	0.2483	0.2554	0.2383	0.2068		0.1493	0.1001
				$\omega\sqrt{\tau} = 0.21$			
2.003	0.4781	0.4888	0.4953	0.4958		0.4994	0.4989
3.014	0.2827	0.3023	0.2886	0.2908		0.3250	0.3300
4.006	0.2723	0.2915	0.2649	0.2257		0.1689	0.2463
5.004	0.2738	0.2909	0.2647	0.2252		0.1619	0.1777
6.000	0.2734	0.2890	0.2640	0.2249		0.1614	0.1438
7.000	0.2734	0.2888	0.2641	0.2247		0.1610	0.1438
7.995	0.2737	0.2894	0.2647	0.2250		0.1608	0.1438
9.012	0.2731	0.2885	0.2642	0.2247		0.1605	0.1110
10.023	0.2736	0.2885	0.2646	0.2250		0.1606	0.0998

Table A43. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 12

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 4.04\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4293	0.4327	0.4309	0.4326	0.4300	0.4479	0.5060	0.5155
2.997	0.2195	0.2187	0.2203	0.2235	0.2201	0.2846	0.2816	0.3915
4.011	0.1160	0.1180	0.1165	0.1154	0.3319	0.2930	0.2064	0.1580
4.997	0.1033	0.1033	0.1033	0.0996	0.3664	0.2698	0.2017	0.1559
5.973	0.0957	0.0965	0.0947	0.0904	0.3989	0.2621	0.1997	0.1551
5.995	0.0955	0.0958	0.0945	0.0903	0.3994	0.2621	0.1997	0.1550
7.009	0.0959	0.0959	0.0949	0.0897	0.3960	0.2626	0.1998	0.1556
8.007	0.0962	0.0960	0.0953	0.0895	0.3944	0.2628	0.1999	0.1554
9.008	0.0963	0.0964	0.0953	0.0891	0.3944	0.2627	0.1999	0.1551
10.009	0.0965	0.0965	0.0953	0.0889	0.3916	0.2631	0.1999	0.1553
				$\omega\sqrt{\tau}$ = 0.06				
1.996	0.4785	0.4767	0.4743	0.4769	0.4768	0.4788	0.5142	0.5149
2.991	0.3101	0.3072	0.3034	0.3057	0.3029	0.3027	0.3196	0.3439
4.011	0.2070	0.2042	0.2028	0.2062	0.2057	0.2580	0.2233	0.1762
4.992	0.2051	0.2028	0.2012	0.2031	0.2037	0.2589	0.2226	0.1756
5.984	0.2051	0.2027	0.2014	0.2024	0.2035	0.2584	0.2223	0.1754
6.989	0.2047	0.2024	0.2010	0.2018	0.2031	0.2584	0.2222	0.1754
7.995	0.2051	0.2029	0.2014	0.2021	0.2035	0.2580	0.2221	0.1756
8.991	0.2038	0.2019	0.2004	0.2008	0.2024	0.2588	0.2223	0.1756
9.995	0.2055	0.2033	0.2022	0.2025	0.2040	0.2574	0.2219	0.1756
				$\omega\sqrt{\tau}$ = 0.15				
1.978	0.5140	0.5072	0.4998	0.5058	0.5052	0.5047	0.5062	0.5097
2.987	0.3401	0.3308	0.3196	0.3255	0.3201	0.3185	0.3247	0.3348
4.003	0.2996	0.2887	0.2759	0.2801	0.2678	0.2447	0.2118	0.2092
4.990	0.2981	0.2870	0.2747	0.2783	0.2671	0.2441	0.2114	0.1748
5.995	0.2975	0.2865	0.2745	0.2775	0.2665	0.2437	0.2111	0.1743
6.998	0.2970	0.2855	0.2738	0.2769	0.2661	0.2435	0.2110	0.1743
8.013	0.2981	0.2866	0.2746	0.2779	0.2669	0.2439	0.2112	0.1743
8.992	0.2986	0.2867	0.2748	0.2783	0.2673	0.2442	0.2114	0.1745
9.987	0.2969	0.2853	0.2737	0.2771	0.2663	0.2436	0.2112	0.1744
				$\omega\sqrt{\tau}$ = 0.21				
1.986	0.5267	0.5137	0.5003	0.5103	0.5087	0.5066	0.5044	0.5035
3.005	0.3695	0.3477	0.3241	0.3330	0.3127	0.2933	0.3049	0.3302
4.020	0.3600	0.3389	0.3150	0.3213	0.2983	0.2614	0.2191	0.2038
4.992	0.3640	0.3419	0.3171	0.3234	0.3003	0.2625	0.2195	0.1792
5.989	0.3594	0.3374	0.3139	0.3202	0.2979	0.2610	0.2186	0.1783
6.995	0.3608	0.3391	0.3147	0.3213	0.2988	0.2616	0.2191	0.1788
8.018	0.3596	0.3379	0.3138	0.3207	0.2983	0.2613	0.2189	0.1787
8.988	0.3583	0.3367	0.3130	0.3199	0.2977	0.2610	0.2189	0.1787
9.982	0.3600	0.3382	0.3139	0.3211	0.2985	0.2614	0.2190	0.1788

Table A43. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.3987	0.4338	0.4302	0.4335	0.4457	0.4629	0.4580
2.997	0.1815	0.2497	0.2525	0.2671	0.2848	0.3005	0.2984
4.011	0.1169	0.1131	0.1254	0.1626	0.1556	0.1203	0.2273
4.997	0.1024	0.1025	0.1203	0.1662	0.1569	0.1180	0.1722
5.973	0.0922	0.0969	0.1168	0.1685	0.1579	0.1196	0.0905
5.995	0.0919	0.0969	0.1173	0.1683	0.1577	0.1192	0.0903
7.009	0.0931	0.0961	0.1136	0.1633	0.1604	0.1222	0.0911
8.007	0.0937	0.0963	0.1130	0.1602	0.1615	0.1239	0.0919
9.008	0.0936	0.0964	0.1130	0.1605	0.1619	0.1242	0.0918
10.009	0.0942	0.0967	0.1130	0.1596	0.1617	0.1242	0.0918
				$\omega\sqrt{\tau} = 0.06$			
1.996	0.4773	0.4726	0.4650	0.4649	0.4704	0.4785	0.4750
2.991	0.3076	0.3059	0.3008	0.2981	0.2999	0.3078	0.3075
4.011	0.1517	0.1687	0.1830	0.1801	0.1755	0.2096	0.2445
4.992	0.1483	0.1657	0.1794	0.1728	0.1508	0.1252	0.1830
5.984	0.1479	0.1658	0.1791	0.1720	0.1505	0.1224	0.1271
6.989	0.1477	0.1650	0.1792	0.1714	0.1499	0.1229	0.1000
7.995	0.1473	0.1647	0.1796	0.1704	0.1489	0.1227	0.0997
8.991	0.1476	0.1650	0.1792	0.1702	0.1488	0.1227	0.0996
9.995	0.1474	0.1655	0.1802	0.1710	0.1493	0.1230	0.1000
				$\omega\sqrt{\tau} = 0.15$			
1.978	0.4521	0.4875	0.4855	0.4808	0.4828	0.4901	0.4908
2.987	0.2156	0.2495	0.2911	0.3007	0.3029	0.3084	0.3269
4.003	0.1605	0.1391	0.2119	0.2044	0.1792	0.2212	0.2489
4.990	0.1596	0.1361	0.2117	0.2037	0.1723	0.1430	0.1747
5.995	0.1589	0.1342	0.2111	0.2035	0.1724	0.1435	0.1237
6.998	0.1581	0.1231	0.2130	0.2048	0.1735	0.1442	0.1239
8.013	0.1577	0.1000	0.2157	0.2066	0.1750	0.1454	0.1248
8.992	0.1572	0.0955	0.2158	0.2065	0.1752	0.1457	0.1249
9.987	0.1563	0.1001	0.2155	0.2065	0.1750	0.1453	0.1245
				$\omega\sqrt{\tau} = 0.21$			
1.986	0.4072	0.4468	0.4821	0.4782	0.4802	0.4875	0.4948
3.005	0.1959	0.1853	0.2745	0.3050	0.3180	0.3298	0.3327
4.020	0.1906	0.1218	0.2146	0.2179	0.1870	0.1625	0.2368
4.992	0.1925	0.1109	0.2157	0.2184	0.1880	0.1642	0.1626
5.989	0.1894	0.1050	0.2172	0.2174	0.1872	0.1629	0.1538
6.995	0.1886	0.1037	0.2153	0.2175	0.1887	0.1645	0.1557
8.018	0.1878	0.1046	0.2134	0.2183	0.1898	0.1652	0.1547
8.988	0.1871	0.1069	0.2103	0.2181	0.1896	0.1648	0.1540
9.982	0.1880	0.1105	0.2070	0.2189	0.1904	0.1658	0.1556

Table A43. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4290	0.4273	0.4251	0.4599		0.4717	0.4990
2.997	0.2198	0.2183	0.2193	0.2318		0.3333	0.3335
4.011	0.1166	0.1159	0.1221	0.1960		0.1434	0.2492
4.997	0.1031	0.1030	0.1292	0.2037		0.1535	0.2000
5.973	0.0951	0.0956	0.1390	0.2066		0.1523	0.1673
5.995	0.0953	0.0955	0.1356	0.2070		0.1524	0.1667
7.009	0.0956	0.0959	0.1331	0.2062		0.1522	0.1426
8.007	0.0958	0.0965	0.1301	0.2058		0.1529	0.1248
9.008	0.0960	0.0964	0.1249	0.2063		0.1532	0.1109
10.009	0.0962	0.0967	0.1244	0.2066		0.1524	0.0998
				$\omega\sqrt{\tau} = 0.06$			
1.996	0.4712	0.4735	0.4735	0.4797		0.4910	0.5007
2.991	0.2984	0.3017	0.3010	0.3018		0.3198	0.3342
4.011	0.1947	0.1987	0.1925	0.1790		0.2011	0.2493
4.992	0.1940	0.1970	0.1910	0.1774		0.1354	0.2003
5.984	0.1942	0.1969	0.1909	0.1775		0.1350	0.1671
6.989	0.1942	0.1965	0.1906	0.1769		0.1344	0.1431
7.995	0.1948	0.1966	0.1909	0.1766		0.1339	0.1251
8.991	0.1939	0.1958	0.1899	0.1756		0.1332	0.1112
9.995	0.1953	0.1969	0.1912	0.1764		0.1332	0.1001
				$\omega\sqrt{\tau} = 0.15$			
1.978	0.4882	0.4945	0.4984	0.4986		0.5078	0.5054
2.987	0.3006	0.3089	0.3105	0.3162		0.3282	0.3347
4.003	0.2506	0.2606	0.2427	0.2115		0.2300	0.2498
4.990	0.2504	0.2592	0.2421	0.2109		0.1518	0.2004
5.995	0.2505	0.2583	0.2418	0.2109		0.1516	0.1668
6.998	0.2500	0.2576	0.2415	0.2103		0.1508	0.1429
8.013	0.2505	0.2580	0.2420	0.2104		0.1504	0.1248
8.992	0.2508	0.2580	0.2422	0.2104		0.1502	0.1112
9.987	0.2500	0.2569	0.2414	0.2098		0.1497	0.1001
				$\omega\sqrt{\tau} = 0.21$			
1.986	0.4782	0.4888	0.4962	0.4978		0.5009	0.5034
3.005	0.2811	0.3035	0.2887	0.2892		0.3237	0.3327
4.020	0.2721	0.2926	0.2677	0.2284		0.1635	0.2487
4.992	0.2750	0.2939	0.2691	0.2293		0.1635	0.2003
5.989	0.2744	0.2907	0.2675	0.2283		0.1624	0.1670
6.995	0.2750	0.2914	0.2684	0.2287		0.1625	0.1430
8.018	0.2743	0.2902	0.2679	0.2281		0.1617	0.1247
8.988	0.2738	0.2890	0.2675	0.2279		0.1615	0.1113
9.982	0.2743	0.2897	0.2681	0.2283		0.1615	0.1002

Table A44. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 13

$\left[\text{Top surface only; AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.005	0.2116	0.2129	0.2087	0.2314	0.3210	0.4182	0.4556	0.4851
3.007	0.1673	0.1664	0.1685	0.2446	0.2610	0.2218	0.1854	0.3037
4.007	0.1366	0.1367	0.1363	0.2762	0.2637	0.2227	0.1863	0.1573
5.008	0.1347	0.1351	0.1344	0.2778	0.2639	0.2225	0.1862	0.1574
6.002	0.1337	0.1340	0.1331	0.2809	0.2644	0.2227	0.1859	0.1570
				$\omega\sqrt{\tau} = 0.01$				
2.009	0.3714	0.3637	0.3656	0.3639	0.3921	0.4306	0.4603	0.4868
3.010	0.2201	0.2083	0.2105	0.2248	0.2560	0.2224	0.1868	0.3007
4.002	0.2162	0.2049	0.2077	0.2234	0.2558	0.2223	0.1868	0.1581
5.001	0.2156	0.2045	0.2078	0.2245	0.2567	0.2224	0.1867	0.1581
6.009	0.2118	0.2011	0.2047	0.2239	0.2567	0.2226	0.1869	0.1581
				$\omega\sqrt{\tau} = 0.03$				
2.010	0.4139	0.3734	0.3822	0.3940	0.4091	0.4397	0.4651	0.4881
2.997	0.2918	0.2224	0.2354	0.2585	0.2527	0.2234	0.1899	0.3022
4.002	0.2897	0.2195	0.2344	0.2572	0.2522	0.2234	0.1904	0.1624
5.005	0.2888	0.2175	0.2341	0.2567	0.2521	0.2227	0.1898	0.1621
6.008	0.2868	0.2163	0.2348	0.2560	0.2522	0.2227	0.1896	0.1618
				$\omega\sqrt{\tau} = 0.05$				
2.010	0.4481	0.3370	0.3536	0.4024	0.4215	0.4481	0.4699	0.4898
3.007	0.4092	0.2518	0.2260	0.2893	0.2596	0.2256	0.1931	0.3052
4.003	0.4083	0.2502	0.2229	0.2881	0.2585	0.2252	0.1931	0.1665
5.005	0.4067	0.2494	0.2187	0.2881	0.2582	0.2248	0.1929	0.1659
6.012	0.4065	0.2489	0.2130	0.2886	0.2583	0.2248	0.1928	0.1659

Table A45. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 14

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.4374	0.4396	0.4371	0.6128	0.6295	0.5740	0.5167	0.4616
3.003	0.2646	0.2654	0.2595	0.5884	0.4688	0.3770	0.3081	0.2519
4.021	0.1710	0.1649	0.1158	0.5302	0.4319	0.3450	0.2742	0.2114
5.006	0.1664	0.1587	0.1034	0.5254	0.4314	0.3450	0.2745	0.2114
5.994	0.1649	0.1568	0.1004	0.5244	0.4315	0.3454	0.2749	0.2118
				$\omega\sqrt{\tau} = 0.01$				
2.006	0.4716	0.4704	0.4702	0.6073	0.6382	0.5815	0.5338	0.4655
2.999	0.3081	0.3077	0.3053	0.5577	0.4791	0.3852	0.3152	0.2582
3.996	0.2437	0.2421	0.2350	0.5846	0.4494	0.3540	0.2795	0.2150
5.013	0.2165	0.2135	0.1998	0.5777	0.4427	0.3509	0.2774	0.2132
6.010	0.2154	0.2127	0.1984	0.5767	0.4426	0.3510	0.2776	0.2135
				$\omega\sqrt{\tau} = 0.03$				
2.000	0.4910	0.4907	0.4915	0.5899	0.6352	0.5814	0.5354	0.4697
2.998	0.3565	0.3545	0.3554	0.5098	0.4780	0.3834	0.3125	0.2513
3.996	0.3289	0.3282	0.3283	0.5230	0.4623	0.3630	0.2863	0.2205
4.998	0.3293	0.3284	0.3285	0.5230	0.4621	0.3633	0.2868	0.2207
6.006	0.3286	0.3276	0.3273	0.5235	0.4619	0.3635	0.2871	0.2211
				$\omega\sqrt{\tau} = 0.05$				
1.995	0.5288	0.5209	0.5202	0.5634	0.6047	0.5640	0.5296	0.4677
3.021	0.4230	0.4136	0.4124	0.4773	0.4677	0.3774	0.3065	0.2437
3.998	0.4279	0.4168	0.4154	0.4757	0.4615	0.3669	0.2912	0.2252
5.014	0.4160	0.4070	0.4064	0.4781	0.4623	0.3672	0.2915	0.2251
5.993	0.4174	0.4082	0.4081	0.4785	0.4626	0.3677	0.2919	0.2256

Table A45. Continued

(b) Bottom surface

			$\omega\sqrt{\tau}$ = 0.00				
			x/L				
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.4314	0.4363	0.4361	0.4408	0.4492	0.4670	0.4721
3.003	0.2603	0.2615	0.2570	0.2615	0.2722	0.2896	0.3077
4.021	0.1625	0.1607	0.1621	0.1595	0.1696	0.2113	0.2456
5.006	0.1534	0.1521	0.1573	0.1562	0.1637	0.2038	0.2215
5.994	0.1503	0.1501	0.1571	0.1556	0.1629	0.2035	0.2127
			$\omega\sqrt{\tau}$ = 0.01				
2.006	0.4576	0.4564	0.4539	0.4559	0.4617	0.4725	0.4831
2.999	0.2909	0.2910	0.2894	0.2861	0.2859	0.2964	0.3166
3.996	0.2084	0.2097	0.2144	0.2113	0.2120	0.2170	0.2331
5.013	0.1598	0.1163	0.1712	0.1817	0.1874	0.1952	0.2071
6.010	0.1587	0.1097	0.1677	0.1795	0.1864	0.1941	0.1979
			$\omega\sqrt{\tau}$ = 0.03				
2.000	0.4612	0.4616	0.4596	0.4602	0.4663	0.4763	0.4881
2.998	0.2866	0.2785	0.2975	0.2957	0.2957	0.2985	0.3086
3.996	0.2407	0.1300	0.1605	0.1918	0.2139	0.2328	0.2472
4.998	0.2404	0.1223	0.1552	0.1860	0.1994	0.2128	0.2197
6.006	0.2397	0.1191	0.1551	0.1857	0.1978	0.2092	0.2112
			$\omega\sqrt{\tau}$ = 0.05				
1.995	0.4486	0.4349	0.4629	0.4636	0.4630	0.4672	0.4871
3.021	0.3096	0.2197	0.2915	0.3041	0.3021	0.3057	0.3152
3.998	0.3119	0.1301	0.1609	0.2006	0.2233	0.2425	0.2505
5.014	0.3028	0.1200	0.1573	0.1957	0.2175	0.2355	0.2282
5.993	0.3037	0.0960	0.1564	0.1988	0.2194	0.2370	0.2240

Table A45. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.4389	0.4342	0.4741	0.4967		0.4863	0.4725
3.003	0.2650	0.2638	0.3149	0.3682		0.3056	0.2934
4.021	0.1699	0.1647	0.3276	0.3123		0.2140	0.1774
5.006	0.1648	0.1588	0.3362	0.3113		0.2126	0.1755
5.994	0.1636	0.1583	0.3394	0.3112		0.2119	0.1751
				$\omega\sqrt{\tau} = 0.01$			
2.006	0.4657	0.4620	0.4804	0.5205		0.4976	0.4755
2.999	0.3013	0.2998	0.3179	0.3666		0.3349	0.3111
3.996	0.2389	0.2368	0.2575	0.2940		0.2277	0.2002
5.013	0.2130	0.2109	0.2702	0.3079		0.2160	0.1765
6.010	0.2120	0.2098	0.2714	0.3083		0.2159	0.1763
				$\omega\sqrt{\tau} = 0.03$			
2.000	0.4772	0.4726	0.4717	0.5246		0.5029	0.4781
2.998	0.3302	0.3257	0.3230	0.3258		0.3458	0.3150
3.996	0.3020	0.2973	0.2822	0.2597		0.2133	0.1773
4.998	0.3026	0.2977	0.2828	0.2595		0.2132	0.1771
6.006	0.3018	0.2978	0.2827	0.2596		0.2132	0.1769
				$\omega\sqrt{\tau} = 0.05$			
1.995	0.4808	0.4734	0.4785	0.4992		0.5054	0.4852
3.021	0.3594	0.3495	0.3385	0.3044		0.3081	0.3243
3.998	0.3527	0.3391	0.3236	0.2757		0.2045	0.1740
5.014	0.3475	0.3364	0.3194	0.2733		0.2041	0.1729
5.993	0.3478	0.3370	0.3201	0.2737		0.2040	0.1725

Table A46. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 15

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 1.51\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.4307	0.4315	0.4303	0.4380	0.6244	0.6141	0.5582	0.4777
2.999	0.2533	0.2546	0.2522	0.3612	0.5014	0.4046	0.3317	0.2747
4.004	0.1910	0.1899	0.1854	0.4846	0.4633	0.3646	0.2903	0.2255
5.000	0.1905	0.1899	0.1849	0.4878	0.4629	0.3645	0.2904	0.2253
6.001	0.1901	0.1892	0.1844	0.4903	0.4628	0.3647	0.2906	0.2255
				$\omega\sqrt{\tau} = 0.01$				
1.994	0.4643	0.4651	0.4648	0.4612	0.6150	0.6131	0.5618	0.4826
2.989	0.3337	0.3322	0.3328	0.3388	0.4799	0.4119	0.3409	0.2864
4.007	0.2755	0.2751	0.2752	0.3291	0.4714	0.3798	0.3013	0.2328
5.012	0.2696	0.2692	0.2691	0.3365	0.4721	0.3795	0.3011	0.2324
6.003	0.2710	0.2711	0.2707	0.3390	0.4713	0.3797	0.3014	0.2327
				$\omega\sqrt{\tau} = 0.03$				
1.997	0.5036	0.5014	0.5006	0.5008	0.5865	0.5943	0.5506	0.4813
2.992	0.4030	0.3948	0.3949	0.4001	0.4495	0.4042	0.3370	0.2776
4.006	0.3725	0.3663	0.3665	0.3704	0.4365	0.3792	0.3054	0.2376
4.986	0.3760	0.3690	0.3697	0.3737	0.4355	0.3792	0.3061	0.2381
6.001	0.3742	0.3677	0.3683	0.3720	0.4359	0.3797	0.3066	0.2384
				$\omega\sqrt{\tau} = 0.05$				
1.994	0.5678	0.5506	0.5492	0.5546	0.5588	0.5533	0.5198	0.4740
2.996	0.4676	0.4430	0.4422	0.4461	0.4316	0.3870	0.3245	0.2645
4.009	0.4536	0.4303	0.4298	0.4333	0.4204	0.3712	0.3037	0.2381
4.995	0.4533	0.4305	0.4301	0.4332	0.4204	0.3716	0.3043	0.2385
6.001	0.4525	0.4300	0.4299	0.4325	0.4204	0.3720	0.3047	0.2388

Table A46. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.4322	0.4479	0.4369	0.4386	0.4465	0.4659	0.4658
2.999	0.2549	0.2823	0.2651	0.2708	0.2818	0.2986	0.3005
4.004	0.1919	0.1046	0.1188	0.1385	0.1767	0.1719	0.2274
5.000	0.1911	0.1033	0.1176	0.1371	0.1779	0.1727	0.1540
6.001	0.1908	0.1022	0.1172	0.1367	0.1790	0.1730	0.1521
				$\omega\sqrt{\tau} = 0.01$			
1.994	0.4657	0.4535	0.4453	0.4471	0.4548	0.4723	0.4748
2.989	0.3345	0.2929	0.2808	0.2844	0.2916	0.3035	0.3040
4.007	0.2756	0.0918	0.1226	0.1609	0.1975	0.1803	0.2273
5.012	0.2697	0.0907	0.1201	0.1588	0.1985	0.1805	0.1495
6.003	0.2708	0.0894	0.1184	0.1588	0.2010	0.1812	0.1496
				$\omega\sqrt{\tau} = 0.03$			
1.997	0.5057	0.4519	0.4439	0.4455	0.4519	0.4688	0.4729
2.992	0.4038	0.2805	0.2683	0.2754	0.2853	0.2994	0.3060
4.006	0.3731	0.0838	0.1236	0.1796	0.2156	0.1998	0.2077
4.986	0.3767	0.0816	0.1217	0.1800	0.2189	0.2017	0.1774
6.001	0.3750	0.0802	0.1205	0.1795	0.2218	0.2019	0.1766
				$\omega\sqrt{\tau} = 0.05$			
1.994	0.5700	0.4478	0.4349	0.4395	0.4509	0.4701	0.4737
2.996	0.4694	0.2491	0.2387	0.2541	0.2708	0.2887	0.3092
4.009	0.4554	0.0740	0.1192	0.1902	0.2339	0.2401	0.2516
4.995	0.4551	0.0737	0.1186	0.1891	0.2361	0.2402	0.2456
6.001	0.4542	0.0728	0.1172	0.1874	0.2392	0.2395	0.2458

Table A46. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.4315	0.4268	0.4690	0.4870		0.4860	0.4781
2.999	0.2531	0.2526	0.3230	0.3461		0.3209	0.3133
4.004	0.1910	0.1900	0.2886	0.2910		0.2117	0.1728
5.000	0.1904	0.1897	0.2874	0.2924		0.2119	0.1729
6.001	0.1902	0.1894	0.2878	0.2931		0.2117	0.1728
				$\omega\sqrt{\tau} = 0.01$			
1.994	0.4610	0.4589	0.4760	0.5013		0.4929	0.4819
2.989	0.3209	0.3209	0.3261	0.3347		0.3285	0.3285
4.007	0.2680	0.2667	0.2654	0.2608		0.2048	0.1721
5.012	0.2631	0.2620	0.2612	0.2623		0.2063	0.1727
6.003	0.2642	0.2631	0.2614	0.2623		0.2062	0.1725
				$\omega\sqrt{\tau} = 0.03$			
1.997	0.4809	0.4804	0.4791	0.4899		0.4907	0.4818
2.992	0.3575	0.3568	0.3517	0.3271		0.2949	0.3176
4.006	0.3269	0.3241	0.3095	0.2670		0.1964	0.1760
4.986	0.3280	0.3252	0.3107	0.2677		0.1966	0.1669
6.001	0.3274	0.3244	0.3102	0.2676		0.1967	0.1668
				$\omega\sqrt{\tau} = 0.05$			
1.994	0.4975	0.4935	0.5006	0.4871		0.4819	0.4831
2.996	0.3739	0.3671	0.3645	0.3244		0.2597	0.3067
4.009	0.3541	0.3456	0.3349	0.2836		0.2032	0.1887
4.995	0.3533	0.3448	0.3352	0.2835		0.2034	0.1702
6.001	0.3523	0.3439	0.3351	0.2833		0.2032	0.1700

Table A47. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 16

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 2.06\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.996	0.4389	0.4431	0.4395	0.5748	0.6396	0.5836	0.5267	0.4674
3.004	0.2604	0.2624	0.2565	0.5786	0.4779	0.3837	0.3131	0.2538
3.994	0.1710	0.1669	0.1320	0.5391	0.4354	0.3485	0.2776	0.2154
5.005	0.1669	0.1604	0.1216	0.5324	0.4344	0.3483	0.2778	0.2150
5.997	0.1655	0.1590	0.1185	0.5305	0.4341	0.3480	0.2777	0.2150
				$\omega\sqrt{\tau} = 0.01$				
1.995	0.4705	0.4709	0.4708	0.5737	0.6477	0.5901	0.5404	0.4709
3.008	0.2989	0.2991	0.2967	0.5329	0.4869	0.3916	0.3208	0.2652
3.998	0.2434	0.2426	0.2375	0.5775	0.4562	0.3587	0.2834	0.2192
5.001	0.2295	0.2277	0.2201	0.5860	0.4523	0.3569	0.2824	0.2181
6.010	0.2340	0.2323	0.2254	0.5831	0.4536	0.3577	0.2829	0.2184
				$\omega\sqrt{\tau} = 0.03$				
1.989	0.5053	0.5033	0.5051	0.5528	0.6366	0.5863	0.5402	0.4730
2.994	0.3674	0.3658	0.3654	0.4680	0.4858	0.3924	0.3210	0.2606
3.998	0.3426	0.3412	0.3414	0.4742	0.4685	0.3694	0.2922	0.2262
5.001	0.3443	0.3422	0.3425	0.4752	0.4682	0.3694	0.2924	0.2261
6.006	0.3382	0.3363	0.3366	0.4804	0.4679	0.3692	0.2921	0.2258
				$\omega\sqrt{\tau} = 0.05$				
1.998	0.5443	0.5357	0.5344	0.5568	0.6096	0.5692	0.5312	0.4671
2.984	0.4394	0.4263	0.4252	0.4540	0.4694	0.3849	0.3137	0.2517
3.995	0.4348	0.4214	0.4194	0.4513	0.4612	0.3713	0.2960	0.2302
5.002	0.4237	0.4119	0.4112	0.4511	0.4628	0.3716	0.2960	0.2296
6.009	0.4243	0.4127	0.4121	0.4515	0.4626	0.3716	0.2960	0.2297

Table A47. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.996	0.4330	0.4400	0.4386	0.4426	0.4690	0.4505	0.4730
3.004	0.2544	0.2587	0.2548	0.2606	0.2913	0.2726	0.3098
3.994	0.1608	0.1568	0.1591	0.1601	0.2042	0.1703	0.2457
5.005	0.1511	0.1468	0.1529	0.1565	0.1959	0.1646	0.2212
5.997	0.1474	0.1432	0.1531	0.1554	0.1950	0.1641	0.2127
				$\omega\sqrt{\tau} = 0.01$			
1.995	0.4621	0.4591	0.4553	0.4566	0.4750	0.4623	0.4839
3.008	0.2900	0.2885	0.2846	0.2810	0.2951	0.2826	0.3124
3.998	0.2029	0.1940	0.1971	0.2007	0.2156	0.2076	0.2339
5.001	0.1743	0.0994	0.1635	0.1776	0.1954	0.1869	0.2050
6.010	0.1772	0.0920	0.1594	0.1742	0.1943	0.1844	0.1966
				$\omega\sqrt{\tau} = 0.03$			
1.989	0.4685	0.4639	0.4624	0.4605	0.4741	0.4626	0.4906
2.994	0.3055	0.2978	0.2974	0.2943	0.3025	0.2963	0.3090
3.998	0.2591	0.1194	0.1561	0.1869	0.2256	0.2048	0.2462
5.001	0.2592	0.1147	0.1536	0.1852	0.2013	0.1967	0.2194
6.006	0.2544	0.1117	0.1528	0.1849	0.1963	0.1954	0.2106
				$\omega\sqrt{\tau} = 0.05$			
1.998	0.4705	0.4635	0.4592	0.4579	0.4724	0.4638	0.4784
2.984	0.3335	0.2298	0.2935	0.3063	0.3086	0.3043	0.3175
3.995	0.3269	0.1201	0.1598	0.1977	0.2410	0.2212	0.2504
5.002	0.3182	0.0853	0.1556	0.1987	0.2341	0.2187	0.2301
6.009	0.3185	0.0833	0.1503	0.2042	0.2348	0.2210	0.2268

Table A47. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.996	0.4420	0.4338	0.4713	0.4964		0.4899	0.4771
3.004	0.2613	0.2589	0.3030	0.3618		0.3134	0.2951
3.994	0.1705	0.1661	0.3121	0.3142		0.2175	0.1799
5.005	0.1654	0.1610	0.3196	0.3142		0.2157	0.1777
5.997	0.1643	0.1593	0.3226	0.3142		0.2150	0.1770
				$\omega\sqrt{\tau} = 0.01$			
1.995	0.4679	0.4654	0.4749	0.5161		0.5000	0.4794
3.008	0.2957	0.2951	0.3142	0.3643		0.3353	0.3140
3.998	0.2391	0.2380	0.2517	0.2851		0.2253	0.1925
5.001	0.2256	0.2239	0.2526	0.2939		0.2193	0.1795
6.010	0.2291	0.2271	0.2489	0.2915		0.2192	0.1792
				$\omega\sqrt{\tau} = 0.03$			
1.989	0.4865	0.4832	0.4748	0.5164		0.5050	0.4835
2.994	0.3397	0.3373	0.3331	0.3288		0.3443	0.3202
3.998	0.3122	0.3080	0.2909	0.2585		0.2097	0.1778
5.001	0.3128	0.3080	0.2913	0.2582		0.2096	0.1777
6.006	0.3088	0.3039	0.2887	0.2573		0.2105	0.1777
				$\omega\sqrt{\tau} = 0.05$			
1.998	0.4930	0.4871	0.4918	0.4926		0.4988	0.4857
2.984	0.3701	0.3616	0.3495	0.3132		0.3130	0.3301
3.995	0.3576	0.3461	0.3281	0.2784		0.2050	0.1787
5.002	0.3521	0.3414	0.3242	0.2758		0.2044	0.1730
6.009	0.3521	0.3415	0.3245	0.2761		0.2044	0.1723

Table A48. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 17

$\left[\text{Top surface only; AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.001	0.4092	0.4066	0.4058	0.4029	0.4082	0.4338	0.4606	0.4844
3.013	0.1633	0.1600	0.1619	0.1625	0.2193	0.1998	0.1648	0.3055
4.003	0.1459	0.1449	0.1453	0.1521	0.2281	0.2008	0.1643	0.1426
5.002	0.1285	0.1282	0.1280	0.1579	0.2347	0.2008	0.1636	0.1365
5.999	0.1131	0.1129	0.1126	0.1756	0.2382	0.2005	0.1636	0.1370
				$\omega\sqrt{\tau} = 0.02$				
1.998	0.4429	0.4365	0.4385	0.4378	0.4357	0.4434	0.4640	0.4860
3.002	0.1998	0.1846	0.1908	0.1918	0.2067	0.1969	0.1666	0.3078
3.995	0.2010	0.1845	0.1912	0.1921	0.2069	0.1967	0.1659	0.1672
4.996	0.1964	0.1816	0.1875	0.1886	0.2074	0.1965	0.1656	0.1390
6.013	0.1944	0.1799	0.1860	0.1871	0.2089	0.1967	0.1653	0.1388
				$\omega\sqrt{\tau} = 0.06$				
1.997	0.4876	0.4429	0.4637	0.4675	0.4677	0.4676	0.4753	0.4906
2.990	0.3069	0.2276	0.2617	0.2752	0.2809	0.2940	0.3126	0.3272
4.012	0.2799	0.1848	0.2247	0.2336	0.2181	0.1962	0.1683	0.2137
5.008	0.2830	0.1844	0.2246	0.2345	0.2184	0.1959	0.1683	0.1432
6.011	0.2799	0.1866	0.2236	0.2334	0.2176	0.1955	0.1679	0.1427
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.5173	0.4137	0.4602	0.4701	0.4739	0.4773	0.4828	0.4936
3.009	0.3721	0.1673	0.2354	0.2694	0.2820	0.3046	0.3160	0.3262
3.990	0.3737	0.1743	0.2155	0.2561	0.2344	0.2041	0.1729	0.2311
5.008	0.3684	0.1705	0.2173	0.2549	0.2330	0.2029	0.1722	0.1462
6.002	0.3664	0.1711	0.2153	0.2553	0.2328	0.2026	0.1719	0.1457

Table A49. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 18

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.011	0.4561	0.4556	0.4556	0.4516	0.5818	0.5979	0.5599	0.4950
3.000	0.2938	0.2940	0.2933	0.3228	0.4641	0.3848	0.3176	0.2682
3.996	0.1910	0.1921	0.1885	0.4333	0.4382	0.3405	0.2716	0.2151
4.993	0.1351	0.1337	0.1162	0.5296	0.4062	0.3257	0.2604	0.2027
6.013	0.1221	0.1148	0.0922	0.4753	0.3998	0.3230	0.2600	0.2024
				$\omega\sqrt{\tau}$ = 0.02				
2.012	0.4740	0.4719	0.4724	0.4693	0.5869	0.6025	0.5647	0.4959
3.007	0.3209	0.3208	0.3200	0.3285	0.4574	0.3892	0.3285	0.2913
3.977	0.2452	0.2443	0.2447	0.3348	0.4482	0.3586	0.2882	0.2281
5.008	0.2084	0.2077	0.2065	0.3939	0.4431	0.3431	0.2702	0.2090
5.999	0.1934	0.1925	0.1905	0.4313	0.4385	0.3396	0.2686	0.2076
				$\omega\sqrt{\tau}$ = 0.06				
1.998	0.5041	0.4951	0.4977	0.5015	0.5759	0.5998	0.5706	0.5055
3.010	0.3572	0.3450	0.3500	0.3542	0.4332	0.3790	0.3138	0.2619
4.016	0.3104	0.3009	0.3074	0.3166	0.4275	0.3529	0.2802	0.2182
5.011	0.3116	0.3037	0.3084	0.3185	0.4270	0.3529	0.2812	0.2184
5.998	0.3101	0.3040	0.3073	0.3194	0.4273	0.3530	0.2820	0.2186
				$\omega\sqrt{\tau}$ = 0.09				
2.000	0.5258	0.5053	0.5098	0.5201	0.5521	0.5768	0.5588	0.5037
2.995	0.3963	0.3727	0.3786	0.3880	0.4120	0.3674	0.3044	0.2490
3.975	0.3856	0.3618	0.3692	0.3779	0.4027	0.3502	0.2825	0.2221
4.999	0.3826	0.3596	0.3672	0.3756	0.4039	0.3509	0.2837	0.2222
5.998	0.3799	0.3586	0.3650	0.3734	0.4049	0.3513	0.2845	0.2222

Table A49. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.011	0.4354	0.4523	0.4535	0.4561	0.4646	0.4716	0.4679
3.000	0.2682	0.2891	0.2895	0.2919	0.2996	0.3055	0.3017
3.996	0.1763	0.1864	0.1878	0.1949	0.2045	0.2186	0.2213
4.993	0.1337	0.1324	0.1311	0.1296	0.1382	0.1567	0.1818
6.013	0.1152	0.1162	0.1178	0.1189	0.1191	0.1306	0.1502
				$\omega\sqrt{\tau}$ = 0.02			
2.012	0.4698	0.4673	0.4642	0.4642	0.4699	0.4772	0.4750
3.007	0.3197	0.3190	0.3162	0.3121	0.3122	0.3134	0.3113
3.977	0.2354	0.2381	0.2366	0.2326	0.2311	0.2331	0.2321
5.008	0.1835	0.1920	0.1930	0.1935	0.1928	0.1917	0.1901
5.999	0.1319	0.1286	0.1452	0.1476	0.1541	0.1607	0.1632
				$\omega\sqrt{\tau}$ = 0.06			
1.998	0.4798	0.4876	0.4852	0.4804	0.4796	0.4848	0.4841
3.010	0.3065	0.3247	0.3265	0.3254	0.3243	0.3232	0.3226
4.016	0.2057	0.2064	0.2139	0.2215	0.2307	0.2380	0.2422
5.011	0.2058	0.0867	0.1543	0.1748	0.1708	0.1577	0.1924
5.998	0.2049	0.0868	0.1548	0.1747	0.1701	0.1495	0.1460
				$\omega\sqrt{\tau}$ = 0.09			
2.000	0.4613	0.4848	0.4872	0.4846	0.4832	0.4859	0.4854
2.995	0.2848	0.3118	0.3243	0.3221	0.3202	0.3212	0.3215
3.975	0.2556	0.1341	0.2002	0.2287	0.2399	0.2429	0.2440
4.999	0.2534	0.1067	0.1406	0.1811	0.1875	0.1693	0.1802
5.998	0.2505	0.1064	0.1420	0.1792	0.1862	0.1683	0.1488

Table A49. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$ x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.011	0.4545	0.4554	0.4573	0.4703		0.4791	0.4796
3.000	0.2886	0.2896	0.2910	0.3240		0.3281	0.3108
3.996	0.1897	0.1893	0.1941	0.2527		0.2397	0.2120
4.993	0.1338	0.1320	0.2117	0.2771		0.1923	0.1573
6.013	0.1197	0.1159	0.2418	0.2771		0.1876	0.1524
				$\omega\sqrt{\tau} = 0.02$			
2.012	0.4693	0.4706	0.4670	0.4801		0.4849	0.4809
3.007	0.3135	0.3157	0.3167	0.3387		0.3445	0.3146
3.977	0.2388	0.2395	0.2385	0.2495		0.2633	0.2487
5.008	0.2014	0.2019	0.1971	0.2190		0.2033	0.1786
5.999	0.1864	0.1864	0.1806	0.2274		0.1955	0.1595
				$\omega\sqrt{\tau} = 0.06$			
1.998	0.4798	0.4858	0.4878	0.4912		0.5017	0.4872
3.010	0.3189	0.3285	0.3278	0.3272		0.3465	0.3289
4.016	0.2668	0.2718	0.2544	0.2228		0.1766	0.2080
5.011	0.2661	0.2716	0.2540	0.2213		0.1682	0.1462
5.998	0.2656	0.2704	0.2535	0.2211		0.1684	0.1465
				$\omega\sqrt{\tau} = 0.09$			
2.000	0.4736	0.4868	0.4940	0.4917		0.5075	0.4901
2.995	0.3175	0.3330	0.3260	0.3152		0.3272	0.3299
3.975	0.2928	0.3066	0.2865	0.2435		0.1765	0.2372
4.999	0.2912	0.3044	0.2851	0.2421		0.1728	0.1498
5.998	0.2905	0.3029	0.2839	0.2413		0.1724	0.1425

Table A50. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 19

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 2.12\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.4452	0.4451	0.4444	0.4446	0.4758	0.5594	0.5714	0.5158
3.005	0.2618	0.2639	0.2615	0.2594	0.3856	0.3884	0.3265	0.2727
3.999	0.1504	0.1509	0.1479	0.1995	0.4562	0.3468	0.2759	0.2167
5.016	0.1287	0.1262	0.1228	0.2629	0.4289	0.3373	0.2721	0.2141
6.002	0.1259	0.1234	0.1193	0.2789	0.4244	0.3360	0.2721	0.2138
				$\omega\sqrt{\tau} = 0.02$				
2.011	0.4730	0.4679	0.4720	0.4733	0.4905	0.5665	0.5755	0.5180
3.001	0.3176	0.3146	0.3154	0.3167	0.3578	0.3857	0.3419	0.2995
3.985	0.2368	0.2357	0.2365	0.2322	0.3841	0.3618	0.2926	0.2291
5.001	0.2225	0.2219	0.2220	0.2147	0.3989	0.3625	0.2919	0.2273
5.994	0.2247	0.2237	0.2243	0.2170	0.3961	0.3621	0.2930	0.2279
				$\omega\sqrt{\tau} = 0.06$				
2.006	0.5132	0.5004	0.5063	0.5089	0.5111	0.5485	0.5587	0.5119
2.999	0.3715	0.3548	0.3617	0.3628	0.3619	0.3650	0.3308	0.2923
4.025	0.3303	0.3171	0.3223	0.3246	0.3314	0.3413	0.2918	0.2333
5.002	0.3310	0.3183	0.3230	0.3252	0.3316	0.3408	0.2923	0.2335
5.994	0.3306	0.3181	0.3226	0.3247	0.3318	0.3413	0.2931	0.2337
				$\omega\sqrt{\tau} = 0.09$				
1.999	0.5442	0.5211	0.5285	0.5315	0.5309	0.5339	0.5369	0.5057
2.995	0.4222	0.3879	0.3979	0.3980	0.3830	0.3555	0.3162	0.2716
4.026	0.4004	0.3668	0.3764	0.3766	0.3612	0.3312	0.2858	0.2315
5.001	0.3995	0.3667	0.3755	0.3758	0.3608	0.3314	0.2866	0.2319
5.992	0.4031	0.3690	0.3781	0.3780	0.3623	0.3318	0.2871	0.2320

Table A50. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.4298	0.4565	0.4509	0.4526	0.4608	0.4675	0.4627
3.005	0.2394	0.2876	0.2792	0.2833	0.2942	0.3029	0.2983
3.999	0.1473	0.1474	0.1516	0.1768	0.1984	0.2170	0.2301
5.016	0.1211	0.1164	0.1196	0.1298	0.1472	0.1647	0.1840
6.002	0.1140	0.1074	0.1122	0.1154	0.1253	0.1274	0.1531
				$\omega\sqrt{\tau}$ = 0.02			
2.011	0.4704	0.4726	0.4667	0.4671	0.4721	0.4748	0.4719
3.001	0.3174	0.3157	0.3083	0.3062	0.3100	0.3132	0.3082
3.985	0.2227	0.2190	0.2100	0.2058	0.2124	0.2236	0.2298
5.001	0.1784	0.0783	0.1355	0.1511	0.1654	0.1808	0.1884
5.994	0.1801	0.0727	0.1346	0.1495	0.1544	0.1365	0.1510
				$\omega\sqrt{\tau}$ = 0.06			
2.006	0.4938	0.4846	0.4780	0.4750	0.4779	0.4809	0.4792
2.999	0.3342	0.3234	0.3222	0.3188	0.3184	0.3195	0.3171
4.025	0.2654	0.1518	0.1811	0.1957	0.2103	0.2223	0.2325
5.002	0.2653	0.0561	0.1239	0.1684	0.1760	0.1675	0.1928
5.994	0.2646	0.0560	0.1210	0.1686	0.1766	0.1607	0.1442
				$\omega\sqrt{\tau}$ = 0.09			
1.999	0.5009	0.4860	0.4784	0.4741	0.4780	0.4837	0.4815
2.995	0.3488	0.2786	0.3216	0.3211	0.3188	0.3192	0.3171
4.026	0.3222	0.0584	0.1085	0.1884	0.2067	0.2209	0.2378
5.001	0.3210	0.0473	0.1048	0.1711	0.1901	0.1747	0.1830
5.992	0.3236	0.0489	0.1041	0.1703	0.1914	0.1759	0.1563

Table A50. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.4403	0.4357	0.4574	0.4672		0.4813	0.4843
3.005	0.2575	0.2573	0.2589	0.3039		0.3133	0.3168
3.999	0.1501	0.1495	0.1911	0.2383		0.1935	0.1585
5.016	0.1283	0.1275	0.2092	0.2522		0.1905	0.1537
6.002	0.1256	0.1249	0.2117	0.2556		0.1903	0.1532
				$\omega\sqrt{\tau} = 0.02$			
2.011	0.4678	0.4691	0.4699	0.4770		0.4844	0.4841
3.001	0.3067	0.3101	0.3077	0.3195		0.3287	0.3186
3.985	0.2289	0.2297	0.2252	0.2156		0.1804	0.1927
5.001	0.2153	0.2164	0.2118	0.2111		0.1706	0.1452
5.994	0.2170	0.2180	0.2134	0.2106		0.1705	0.1447
				$\omega\sqrt{\tau} = 0.06$			
2.006	0.4818	0.4916	0.4955	0.4911		0.4888	0.4852
2.999	0.3254	0.3388	0.3366	0.3281		0.3283	0.3211
4.025	0.2770	0.2883	0.2728	0.2374		0.1703	0.2336
5.002	0.2762	0.2882	0.2727	0.2369		0.1681	0.1603
5.994	0.2759	0.2874	0.2723	0.2366		0.1681	0.1369
				$\omega\sqrt{\tau} = 0.09$			
1.999	0.4802	0.4993	0.5061	0.4991		0.4882	0.4871
2.995	0.3212	0.3486	0.3450	0.3260		0.3200	0.3216
4.026	0.2857	0.3121	0.2984	0.2535		0.1791	0.2385
5.001	0.2851	0.3109	0.2980	0.2531		0.1790	0.1496
5.992	0.2846	0.3116	0.2991	0.2539		0.1796	0.1461

Table A51. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 20

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 3.32\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.4421	0.4429	0.4427	0.4416	0.4578	0.5431	0.5712	0.5239
2.998	0.2460	0.2450	0.2456	0.2441	0.3474	0.3873	0.3334	0.2821
4.013	0.1416	0.1418	0.1398	0.1522	0.4594	0.3516	0.2799	0.2207
5.007	0.1345	0.1340	0.1320	0.1574	0.4599	0.3469	0.2787	0.2196
6.004	0.1342	0.1327	0.1314	0.1587	0.4590	0.3467	0.2793	0.2196
				$\omega\sqrt{\tau} = 0.02$				
1.992	0.4816	0.4785	0.4801	0.4810	0.4815	0.5473	0.5724	0.5253
2.994	0.3068	0.3033	0.3053	0.3058	0.3229	0.3727	0.3407	0.2963
4.002	0.2430	0.2415	0.2424	0.2421	0.3262	0.3560	0.2966	0.2347
4.998	0.2391	0.2373	0.2381	0.2373	0.3314	0.3566	0.2974	0.2347
5.989	0.2374	0.2359	0.2366	0.2355	0.3334	0.3567	0.2980	0.2350
				$\omega\sqrt{\tau} = 0.06$				
1.991	0.5141	0.5034	0.5075	0.5093	0.5107	0.5284	0.5469	0.5153
2.978	0.3761	0.3602	0.3645	0.3649	0.3602	0.3549	0.3341	0.2994
4.004	0.3393	0.3236	0.3284	0.3292	0.3255	0.3228	0.2890	0.2350
4.998	0.3389	0.3231	0.3283	0.3290	0.3255	0.3229	0.2896	0.2353
5.992	0.3394	0.3237	0.3287	0.3293	0.3256	0.3228	0.2901	0.2355
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.5456	0.5202	0.5273	0.5289	0.5254	0.5213	0.5179	0.5035
2.995	0.4304	0.3949	0.4045	0.4031	0.3858	0.3569	0.3211	0.2936
4.003	0.4071	0.3707	0.3801	0.3783	0.3592	0.3263	0.2829	0.2310
4.999	0.4082	0.3710	0.3806	0.3786	0.3595	0.3264	0.2834	0.2310
5.993	0.4080	0.3712	0.3807	0.3786	0.3596	0.3266	0.2839	0.2313

Table A51. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.4393	0.4682	0.4565	0.4569	0.4642	0.4702	0.4654
2.998	0.2395	0.3026	0.2876	0.2893	0.2987	0.3060	0.3002
4.013	0.1415	0.1398	0.1498	0.1781	0.1990	0.2165	0.2299
5.007	0.1319	0.0983	0.1094	0.1140	0.1429	0.1367	0.1797
6.004	0.1315	0.0978	0.1092	0.1135	0.1435	0.1373	0.1247
				$\omega\sqrt{\tau} = 0.02$			
1.992	0.4829	0.4825	0.4740	0.4739	0.4786	0.4811	0.4779
2.994	0.3064	0.3134	0.3019	0.3014	0.3076	0.3128	0.3069
4.002	0.2364	0.0831	0.1198	0.1489	0.1732	0.1962	0.2204
4.998	0.2317	0.0791	0.1168	0.1447	0.1678	0.1497	0.1821
5.989	0.2299	0.0762	0.1151	0.1445	0.1695	0.1500	0.1268
				$\omega\sqrt{\tau} = 0.06$			
1.991	0.5140	0.4825	0.4726	0.4721	0.4776	0.4827	0.4797
2.978	0.3731	0.3175	0.3078	0.3069	0.3121	0.3169	0.3139
4.004	0.3312	0.0624	0.1101	0.1508	0.1884	0.1925	0.2355
4.998	0.3304	0.0615	0.1093	0.1500	0.1900	0.1690	0.1572
5.992	0.3305	0.0569	0.1079	0.1482	0.1940	0.1701	0.1458
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.5422	0.4687	0.4572	0.4578	0.4661	0.4778	0.4750
2.995	0.4253	0.3036	0.2908	0.2918	0.2994	0.3097	0.3076
4.003	0.4001	0.0485	0.1045	0.1279	0.2043	0.1793	0.2307
4.999	0.4003	0.0460	0.1054	0.1257	0.2058	0.1802	0.1616
5.993	0.3997	0.0429	0.1058	0.1235	0.2071	0.1806	0.1620

Table A51. Concluded

(c) Side surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.4325	0.4212	0.4629	0.4705		0.4862	0.4890
2.998	0.2380	0.2374	0.2406	0.3252		0.3176	0.3214
4.013	0.1418	0.1422	0.1960	0.2387		0.1912	0.1559
5.007	0.1347	0.1347	0.1968	0.2419		0.1911	0.1538
6.004	0.1341	0.1342	0.1957	0.2420		0.1913	0.1538
				$\omega\sqrt{\tau}$ = 0.02			
1.992	0.4744	0.4779	0.4780	0.4829		0.4898	0.4902
2.994	0.2952	0.2980	0.2963	0.3102		0.3219	0.3179
4.002	0.2319	0.2344	0.2285	0.2141		0.1652	0.2126
4.998	0.2287	0.2308	0.2253	0.2122		0.1659	0.1388
5.989	0.2273	0.2294	0.2242	0.2119		0.1662	0.1389
				$\omega\sqrt{\tau}$ = 0.06			
1.991	0.4801	0.4932	0.4948	0.4889		0.4877	0.4895
2.978	0.3226	0.3405	0.3363	0.3239		0.3214	0.3209
4.004	0.2736	0.2914	0.2771	0.2407		0.1710	0.2375
4.998	0.2733	0.2907	0.2769	0.2405		0.1710	0.1647
5.992	0.2718	0.2904	0.2770	0.2407		0.1710	0.1386
				$\omega\sqrt{\tau}$ = 0.09			
1.997	0.4684	0.4944	0.4992	0.4911		0.4838	0.4892
2.995	0.3166	0.3521	0.3478	0.3225		0.3029	0.3170
4.003	0.2714	0.3106	0.2992	0.2548		0.1818	0.2385
4.999	0.2678	0.3098	0.2995	0.2547		0.1819	0.1500
5.993	0.2663	0.3092	0.2995	0.2547		0.1820	0.1485

Table A52. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 21

$\left[\text{Top surface only; AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$				
1.999	0.4479	0.4427	0.4435	0.4423	0.4404	0.4477	0.4643	0.4802
2.992	0.1352	0.1332	0.1326	0.1330	0.1856	0.1813	0.1558	0.3107
3.996	0.1214	0.1182	0.1206	0.1194	0.1977	0.1829	0.1517	0.1992
4.998	0.1102	0.1089	0.1098	0.1111	0.2080	0.1836	0.1514	0.1157
5.993	0.0997	0.0992	0.0995	0.1098	0.2150	0.1833	0.1505	0.1154
				$\omega\sqrt{\tau} = 0.03$				
1.997	0.4687	0.4584	0.4623	0.4622	0.4594	0.4584	0.4686	0.4795
2.981	0.3140	0.2978	0.3014	0.3026	0.3012	0.3025	0.3132	0.3237
4.010	0.1849	0.1581	0.1662	0.1695	0.1702	0.1722	0.1516	0.2136
4.999	0.1856	0.1593	0.1661	0.1696	0.1703	0.1719	0.1516	0.1192
5.999	0.1834	0.1596	0.1651	0.1682	0.1697	0.1716	0.1515	0.1182
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.5088	0.4457	0.4579	0.4694	0.4732	0.4745	0.4813	0.4844
2.997	0.3759	0.2731	0.2924	0.3042	0.3176	0.3233	0.3266	0.3294
3.990	0.3534	0.1531	0.1723	0.2153	0.2015	0.1790	0.1598	0.2360
5.004	0.3520	0.1581	0.1726	0.2148	0.2003	0.1783	0.1549	0.1486
6.000	0.3528	0.1555	0.1773	0.2138	0.1997	0.1779	0.1549	0.1224
				$\omega\sqrt{\tau} = 0.12$				
1.993	0.5451	0.4312	0.4515	0.4645	0.4773	0.4839	0.4901	0.4929
2.996	0.4655	0.1824	0.1868	0.2444	0.2802	0.3089	0.3236	0.3305
3.987	0.4692	0.1460	0.1645	0.2327	0.2137	0.1859	0.1597	0.2383
5.013	0.4715	0.1461	0.1649	0.2335	0.2129	0.1852	0.1594	0.1354
5.999	0.4688	0.1500	0.1655	0.2324	0.2131	0.1850	0.1593	0.1251

Table A53. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 22

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$ x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.994	0.4734	0.4707	0.4714	0.4730	0.4960	0.5580	0.5576	0.5050
2.998	0.3073	0.3053	0.3059	0.3072	0.3745	0.3691	0.3103	0.2590
3.995	0.2101	0.2103	0.2106	0.2128	0.4077	0.3443	0.2709	0.2111
5.006	0.1367	0.1367	0.1340	0.3114	0.4060	0.3169	0.2454	0.1892
6.001	0.1088	0.1065	0.0965	0.4981	0.3770	0.3070	0.2417	0.1868
				$\omega\sqrt{\tau} = 0.03$				
2.002	0.4915	0.4857	0.4873	0.4896	0.5110	0.5711	0.5667	0.5048
3.000	0.3278	0.3203	0.3229	0.3254	0.3674	0.3712	0.3217	0.2824
3.994	0.2509	0.2480	0.2492	0.2458	0.3831	0.3477	0.2787	0.2200
5.004	0.2099	0.2083	0.2086	0.2115	0.4047	0.3381	0.2604	0.1996
6.003	0.1838	0.1821	0.1825	0.2170	0.4163	0.3342	0.2547	0.1956
				$\omega\sqrt{\tau} = 0.09$				
1.993	0.5176	0.5005	0.5056	0.5113	0.5150	0.5520	0.5569	0.5085
2.995	0.3639	0.3432	0.3490	0.3530	0.3548	0.3510	0.3036	0.2574
3.996	0.3118	0.2963	0.3016	0.3073	0.3399	0.3303	0.2666	0.2076
4.996	0.2968	0.2838	0.2891	0.2944	0.3462	0.3318	0.2656	0.2059
5.995	0.2947	0.2822	0.2874	0.2923	0.3478	0.3324	0.2657	0.2059
				$\omega\sqrt{\tau} = 0.12$				
1.997	0.5339	0.5044	0.5122	0.5199	0.5224	0.5360	0.5421	0.5051
2.992	0.3903	0.3552	0.3648	0.3694	0.3603	0.3407	0.2956	0.2454
3.997	0.3517	0.3217	0.3306	0.3374	0.3362	0.3219	0.2653	0.2080
4.998	0.3474	0.3188	0.3278	0.3345	0.3355	0.3227	0.2652	0.2074
5.993	0.3472	0.3189	0.3280	0.3343	0.3353	0.3230	0.2655	0.2075

Table A53. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.994	0.4668	0.4683	0.4707	0.4727	0.4768	0.4773	0.4742
2.998	0.2981	0.2983	0.2980	0.2994	0.3054	0.3079	0.3023
3.995	0.2025	0.2015	0.2031	0.2084	0.2141	0.2234	0.2188
5.006	0.1327	0.1307	0.1300	0.1342	0.1477	0.1664	0.1785
6.001	0.1075	0.1062	0.1056	0.1055	0.1138	0.1306	0.1508
				$\omega\sqrt{\tau} = 0.03$			
2.002	0.4889	0.4888	0.4868	0.4851	0.4854	0.4846	0.4831
3.000	0.3260	0.3263	0.3251	0.3230	0.3222	0.3200	0.3163
3.994	0.2418	0.2443	0.2436	0.2425	0.2408	0.2392	0.2358
5.004	0.1899	0.1947	0.1957	0.1961	0.1958	0.1948	0.1915
6.003	0.1430	0.1445	0.1487	0.1538	0.1583	0.1600	0.1607
				$\omega\sqrt{\tau} = 0.09$			
1.993	0.4878	0.4966	0.4975	0.4967	0.4959	0.4947	0.4938
2.995	0.3121	0.3287	0.3314	0.3310	0.3301	0.3286	0.3279
3.996	0.2179	0.2380	0.2424	0.2435	0.2449	0.2461	0.2440
4.996	0.1510	0.0876	0.1541	0.1647	0.1647	0.1762	0.1960
5.995	0.1495	0.0871	0.1539	0.1623	0.1566	0.1352	0.1522
				$\omega\sqrt{\tau} = 0.12$			
1.997	0.4735	0.4937	0.4972	0.4967	0.4959	0.4952	0.4943
2.992	0.2963	0.3243	0.3310	0.3307	0.3306	0.3293	0.3286
3.997	0.2033	0.2311	0.2373	0.2386	0.2404	0.2425	0.2409
4.998	0.1628	0.0998	0.1488	0.1653	0.1680	0.1585	0.1912
5.993	0.1615	0.1012	0.1496	0.1664	0.1669	0.1472	0.1407

Table A53. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.994	0.4686	0.4677	0.4675	0.4709		0.4830	0.4908
2.998	0.2919	0.2908	0.2832	0.3091		0.3151	0.3141
3.995	0.2055	0.2057	0.2043	0.2055		0.2177	0.2296
5.006	0.1361	0.1357	0.1340	0.2015		0.1774	0.1453
6.001	0.1079	0.1067	0.1422	0.2419		0.1717	0.1392
				$\omega\sqrt{\tau} = 0.03$			
2.002	0.4875	0.4887	0.4891	0.4895		0.4859	0.4888
3.000	0.3195	0.3201	0.3159	0.3209		0.3366	0.3180
3.994	0.2410	0.2424	0.2406	0.2365		0.2399	0.2408
5.004	0.1990	0.1999	0.1952	0.1841		0.1710	0.1704
6.003	0.1731	0.1739	0.1693	0.1688		0.1614	0.1434
				$\omega\sqrt{\tau} = 0.09$			
1.993	0.4900	0.4970	0.5021	0.5002		0.4984	0.4946
2.995	0.3199	0.3292	0.3304	0.3273		0.3319	0.3294
3.996	0.2549	0.2622	0.2490	0.2234		0.2174	0.2461
4.996	0.2405	0.2476	0.2324	0.2025		0.1453	0.1750
5.995	0.2397	0.2463	0.2313	0.2017		0.1449	0.1237
				$\omega\sqrt{\tau} = 0.12$			
1.997	0.4833	0.4959	0.5041	0.5017		0.4970	0.4933
2.992	0.3154	0.3299	0.3311	0.3256		0.3300	0.3299
3.997	0.2633	0.2758	0.2609	0.2283		0.1953	0.2468
4.998	0.2594	0.2708	0.2546	0.2183		0.1538	0.1856
5.993	0.2607	0.2706	0.2546	0.2182		0.1537	0.1305

Table A54. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 23

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 2.66\right]$

(a) Top surface

				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau}$ = 0.00				
2.008	0.4603	0.4591	0.4598	0.4595	0.4600	0.4872	0.5221	0.5103
3.002	0.2710	0.2672	0.2699	0.2705	0.2798	0.3371	0.3031	0.2514
3.994	0.1421	0.1440	0.1423	0.1345	0.3954	0.3431	0.2609	0.2021
5.002	0.1106	0.1119	0.1082	0.1304	0.4248	0.3190	0.2505	0.1953
6.000	0.1009	0.0987	0.0957	0.1512	0.3980	0.3134	0.2484	0.1945
				$\omega\sqrt{\tau}$ = 0.03				
2.006	0.4855	0.4815	0.4843	0.4844	0.4847	0.5083	0.5352	0.5123
3.014	0.3203	0.3134	0.3167	0.3164	0.3160	0.3340	0.3209	0.2873
4.007	0.2449	0.2419	0.2433	0.2438	0.2722	0.3312	0.2865	0.2301
5.010	0.2062	0.2042	0.2050	0.2042	0.2981	0.3362	0.2733	0.2128
6.002	0.1925	0.1909	0.1916	0.1891	0.3164	0.3398	0.2723	0.2109
				$\omega\sqrt{\tau}$ = 0.09				
1.997	0.5119	0.4984	0.5037	0.5059	0.5066	0.5102	0.5271	0.5124
2.981	0.3585	0.3375	0.3443	0.3447	0.3379	0.3264	0.3089	0.3026
4.007	0.3042	0.2873	0.2932	0.2951	0.2927	0.2949	0.2667	0.2143
4.999	0.3027	0.2859	0.2918	0.2940	0.2918	0.2952	0.2668	0.2139
6.001	0.3016	0.2850	0.2908	0.2930	0.2910	0.2955	0.2671	0.2139
				$\omega\sqrt{\tau}$ = 0.12				
1.992	0.5266	0.5042	0.5124	0.5155	0.5153	0.5151	0.5178	0.5095
2.975	0.3801	0.3476	0.3569	0.3574	0.3455	0.3253	0.2994	0.3077
4.006	0.3517	0.3189	0.3290	0.3305	0.3188	0.2971	0.2621	0.2114
4.997	0.3509	0.3185	0.3282	0.3299	0.3183	0.2969	0.2621	0.2109
6.000	0.3515	0.3185	0.3284	0.3300	0.3185	0.2970	0.2623	0.2107

Table A54. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.4262	0.4579	0.4621	0.4648	0.4695	0.4706	0.4655
3.002	0.2075	0.2765	0.2818	0.2868	0.2969	0.3036	0.2957
3.994	0.1340	0.1336	0.1448	0.1720	0.1963	0.2176	0.2277
5.002	0.1095	0.1076	0.1086	0.1226	0.1429	0.1639	0.1831
6.000	0.0981	0.0979	0.0992	0.1005	0.1145	0.1318	0.1526
				$\omega\sqrt{\tau} = 0.03$			
2.006	0.4870	0.4850	0.4816	0.4808	0.4822	0.4814	0.4778
3.014	0.3209	0.3194	0.3146	0.3124	0.3140	0.3146	0.3077
4.007	0.2390	0.2416	0.2396	0.2362	0.2342	0.2354	0.2292
5.010	0.1788	0.1897	0.1911	0.1906	0.1880	0.1882	0.1872
6.002	0.1336	0.0883	0.1412	0.1497	0.1555	0.1585	0.1626
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.4872	0.4958	0.4959	0.4947	0.4939	0.4925	0.4904
2.981	0.3082	0.3299	0.3317	0.3309	0.3297	0.3280	0.3262
4.007	0.2091	0.2074	0.2225	0.2246	0.2294	0.2364	0.2389
4.999	0.2075	0.0771	0.1246	0.1510	0.1641	0.1771	0.1898
6.001	0.2066	0.0759	0.1212	0.1501	0.1576	0.1404	0.1525
				$\omega\sqrt{\tau} = 0.12$			
1.992	0.4712	0.4947	0.4974	0.4969	0.4959	0.4948	0.4934
2.975	0.2898	0.2867	0.3310	0.3305	0.3290	0.3276	0.3260
4.006	0.2414	0.1820	0.2082	0.2240	0.2299	0.2358	0.2381
4.997	0.2409	0.0880	0.0958	0.1577	0.1760	0.1868	0.1939
6.000	0.2413	0.0887	0.0933	0.1537	0.1684	0.1507	0.1459

Table A54. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.4496	0.4445	0.4548	0.4636		0.4796	0.4888
3.002	0.2549	0.2540	0.2527	0.2753		0.3098	0.3172
3.994	0.1427	0.1417	0.1433	0.1958		0.1597	0.1675
5.002	0.1112	0.1102	0.1361	0.2166		0.1730	0.1393
6.000	0.1007	0.0998	0.1459	0.2240		0.1711	0.1374
				$\omega\sqrt{\tau} = 0.03$			
2.006	0.4804	0.4800	0.4797	0.4797		0.4846	0.4907
3.014	0.3081	0.3072	0.2950	0.3140		0.3253	0.3154
4.007	0.2357	0.2366	0.2350	0.2292		0.2237	0.2292
5.010	0.1977	0.1976	0.1941	0.1831		0.1548	0.1488
6.002	0.1846	0.1847	0.1813	0.1736		0.1474	0.1243
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.4897	0.4952	0.5006	0.4999		0.4975	0.4942
2.981	0.3180	0.3260	0.3285	0.3243		0.3317	0.3296
4.007	0.2540	0.2601	0.2490	0.2215		0.2185	0.2472
4.999	0.2515	0.2583	0.2455	0.2150		0.1520	0.1896
6.001	0.2511	0.2577	0.2449	0.2145		0.1518	0.1341
				$\omega\sqrt{\tau} = 0.12$			
1.992	0.4862	0.4964	0.5051	0.5044		0.5002	0.4971
2.975	0.3103	0.3242	0.3262	0.3218		0.3271	0.3282
4.006	0.2677	0.2799	0.2676	0.2326		0.1864	0.2459
4.997	0.2663	0.2789	0.2655	0.2286		0.1603	0.1743
6.000	0.2673	0.2789	0.2655	0.2287		0.1604	0.1305

Table A55. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 24

$\left[\text{AB power}; A_t = 6.00 \text{ in}^2; A_e/A_t = 2.00; A_{ej}/A_t = 0.36; \delta = 18°; h_u/h_l = 4.59\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4599	0.4580	0.4584	0.4586	0.4585	0.4744	0.5105	0.5104
2.997	0.2558	0.2531	0.2540	0.2547	0.2568	0.3224	0.3032	0.2631
4.009	0.1333	0.1331	0.1321	0.1239	0.3724	0.3480	0.2640	0.2038
5.001	0.1074	0.1069	0.1051	0.1042	0.4349	0.3232	0.2538	0.1985
5.993	0.1013	0.1001	0.0975	0.1052	0.4297	0.3184	0.2522	0.1983
				$\omega\sqrt{\tau}$ = 0.03				
1.998	0.4854	0.4807	0.4822	0.4823	0.4828	0.4910	0.5188	0.5129
3.001	0.3188	0.3100	0.3139	0.3134	0.3116	0.3174	0.3159	0.2959
3.997	0.2273	0.2242	0.2254	0.2262	0.2400	0.3136	0.2750	0.2182
5.006	0.2020	0.2005	0.2009	0.2010	0.2516	0.3275	0.2758	0.2164
5.967	0.2032	0.2016	0.2019	0.2021	0.2517	0.3265	0.2757	0.2175
				$\omega\sqrt{\tau}$ = 0.09				
1.990	0.5176	0.5048	0.5078	0.5094	0.5091	0.5094	0.5158	0.5109
2.995	0.3628	0.3435	0.3472	0.3473	0.3397	0.3275	0.3141	0.3194
3.990	0.3093	0.2925	0.2962	0.2973	0.2917	0.2822	0.2608	0.2132
5.006	0.3077	0.2916	0.2950	0.2963	0.2910	0.2820	0.2608	0.2125
5.999	0.3098	0.2932	0.2963	0.2976	0.2919	0.2821	0.2604	0.2126
				$\omega\sqrt{\tau}$ = 0.12				
1.996	0.5337	0.5126	0.5174	0.5196	0.5178	0.5156	0.5122	0.5059
2.991	0.3861	0.3563	0.3605	0.3609	0.3478	0.3278	0.3069	0.3203
3.990	0.3577	0.3276	0.3319	0.3328	0.3187	0.2947	0.2598	0.2128
4.990	0.3581	0.3272	0.3322	0.3325	0.3184	0.2942	0.2593	0.2097
6.018	0.3565	0.3264	0.3314	0.3317	0.3178	0.2941	0.2595	0.2091

Table A55. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4273	0.4636	0.4654	0.4675	0.4716	0.4723	0.4663
2.997	0.2196	0.2866	0.2889	0.2918	0.2998	0.3054	0.2975
4.009	0.1274	0.1270	0.1415	0.1719	0.1964	0.2170	0.2282
5.001	0.1058	0.1041	0.1058	0.1207	0.1412	0.1625	0.1832
5.993	0.0961	0.0951	0.0970	0.1000	0.1140	0.1317	0.1519
				$\omega\sqrt{\tau}$ = 0.03			
1.998	0.4837	0.4832	0.4795	0.4797	0.4820	0.4815	0.4769
3.001	0.3175	0.3169	0.3107	0.3092	0.3123	0.3145	0.3070
3.997	0.2225	0.2206	0.2133	0.2077	0.2107	0.2222	0.2224
5.006	0.1612	0.1554	0.1667	0.1689	0.1758	0.1832	0.1900
5.967	0.1521	0.0832	0.1264	0.1350	0.1380	0.1321	0.1601
				$\omega\sqrt{\tau}$ = 0.09			
1.990	0.4959	0.4951	0.4944	0.4931	0.4925	0.4918	0.4894
2.995	0.3251	0.3268	0.3278	0.3264	0.3255	0.3244	0.3213
3.990	0.2327	0.2033	0.2099	0.2089	0.2147	0.2269	0.2332
5.006	0.2300	0.1019	0.1409	0.1658	0.1728	0.1810	0.1895
5.999	0.2307	0.0615	0.1058	0.1477	0.1574	0.1430	0.1601
				$\omega\sqrt{\tau}$ = 0.12			
1.996	0.4913	0.4921	0.4926	0.4908	0.4901	0.4899	0.4876
2.991	0.3105	0.2801	0.3270	0.3275	0.3260	0.3246	0.3215
3.990	0.2682	0.1916	0.2082	0.2108	0.2145	0.2252	0.2321
4.990	0.2677	0.0712	0.0962	0.1437	0.1721	0.1848	0.1944
6.018	0.2673	0.0712	0.0956	0.1403	0.1651	0.1498	0.1472

Table A55. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.4439	0.4350	0.4605	0.4678		0.4820	0.4905
2.997	0.2500	0.2502	0.2460	0.2590		0.3258	0.3209
4.009	0.1327	0.1327	0.1374	0.2017		0.1564	0.1599
5.001	0.1070	0.1066	0.1381	0.2167		0.1722	0.1390
5.993	0.1010	0.0998	0.1428	0.2197		0.1719	0.1377
				$\omega\sqrt{\tau} = 0.03$			
1.998	0.4770	0.4747	0.4743	0.4765		0.4857	0.4934
3.001	0.3024	0.3010	0.2877	0.3061		0.3242	0.3162
3.997	0.2178	0.2172	0.2147	0.2031		0.2141	0.2370
5.006	0.1940	0.1939	0.1910	0.1807		0.1471	0.1376
5.967	0.1947	0.1947	0.1911	0.1796		0.1447	0.1208
				$\omega\sqrt{\tau} = 0.09$			
1.990	0.4914	0.4963	0.5033	0.5011		0.4956	0.4963
2.995	0.3177	0.3266	0.3293	0.3234		0.3308	0.3262
3.990	0.2551	0.2625	0.2524	0.2236		0.2147	0.2476
5.006	0.2530	0.2608	0.2496	0.2188		0.1551	0.1859
5.999	0.2535	0.2619	0.2503	0.2191		0.1550	0.1314
				$\omega\sqrt{\tau} = 0.12$			
1.996	0.4876	0.4981	0.5074	0.5048		0.4951	0.4953
2.991	0.3106	0.3249	0.3275	0.3202		0.3217	0.3234
3.990	0.2682	0.2807	0.2708	0.2355		0.1788	0.2442
4.990	0.2664	0.2813	0.2684	0.2313		0.1627	0.1668
6.018	0.2662	0.2795	0.2680	0.2309		0.1624	0.1321

Table A56. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 25

$\left[\text{Top surface only; dry power; } A_t = 3.208 \text{ in}^2;\ A_e/A_t = 1.66;\ A_{ej}/A_t = 0.23;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.3553	0.3602	0.3590	0.3563	0.3766	0.4145	0.4517	0.4859
3.005	0.1550	0.1596	0.1592	0.1914	0.2096	0.1702	0.2593	0.3169
3.997	0.1252	0.1285	0.1277	0.2268	0.2136	0.1701	0.1398	0.2193
5.003	0.1162	0.1185	0.1178	0.2383	0.2132	0.1707	0.1411	0.1202
5.990	0.1161	0.1178	0.1173	0.2394	0.2140	0.1704	0.1405	0.1196
6.997	0.1159	0.1168	0.1165	0.2406	0.2136	0.1696	0.1404	0.1201
7.990	0.1156	0.1163	0.1160	0.2413	0.2139	0.1702	0.1404	0.1193
9.012	0.1151	0.1155	0.1153	0.2416	0.2138	0.1702	0.1404	0.1193
10.001	0.1148	0.1151	0.1148	0.2411	0.2140	0.1702	0.1404	0.1194
				$\omega\sqrt{\tau} = 0.02$				
2.000	0.4168	0.4071	0.4053	0.4097	0.4110	0.4291	0.4580	0.4881
2.990	0.2096	0.2003	0.1999	0.2010	0.2010	0.1726	0.2776	0.3185
4.003	0.2142	0.2029	0.2023	0.2032	0.1999	0.1701	0.1424	0.2199
4.996	0.2096	0.2002	0.1994	0.2002	0.2005	0.1701	0.1422	0.1213
6.004	0.2083	0.1994	0.1986	0.1995	0.2010	0.1700	0.1422	0.1209
7.000	0.2085	0.1994	0.1984	0.1996	0.2010	0.1699	0.1421	0.1209
8.011	0.2082	0.1991	0.1982	0.1994	0.2011	0.1697	0.1419	0.1208
8.992	0.2083	0.1991	0.1982	0.1995	0.2009	0.1696	0.1420	0.1208
9.994	0.2062	0.1975	0.1967	0.1981	0.2011	0.1693	0.1418	0.1209
				$\omega\sqrt{\tau} = 0.05$				
1.987	0.4435	0.4208	0.4178	0.4264	0.4255	0.4368	0.4664	0.4935
3.002	0.2768	0.2422	0.2361	0.2467	0.2545	0.2797	0.3011	0.3228
3.995	0.2726	0.2346	0.2261	0.2312	0.2038	0.1726	0.1471	0.2246
4.994	0.2687	0.2324	0.2245	0.2298	0.2033	0.1720	0.1468	0.1283
6.010	0.2676	0.2315	0.2236	0.2296	0.2033	0.1718	0.1466	0.1272
7.001	0.2675	0.2311	0.2228	0.2296	0.2033	0.1715	0.1464	0.1270
8.010	0.2662	0.2303	0.2224	0.2292	0.2031	0.1713	0.1463	0.1268
9.000	0.2665	0.2304	0.2227	0.2294	0.2030	0.1712	0.1463	0.1270
9.996	0.2672	0.2305	0.2235	0.2297	0.2030	0.1710	0.1463	0.1270
				$\omega\sqrt{\tau} = 0.08$				
1.994	0.4805	0.4270	0.4169	0.4355	0.4463	0.4533	0.4709	0.4933
3.005	0.3430	0.2638	0.2206	0.2554	0.2152	0.2116	0.2901	0.3224
4.002	0.3356	0.2586	0.2157	0.2542	0.2145	0.1780	0.1522	0.2233
4.996	0.3358	0.2579	0.2116	0.2542	0.2141	0.1778	0.1524	0.1354
6.006	0.3330	0.2559	0.2094	0.2537	0.2139	0.1774	0.1524	0.1343
6.997	0.3318	0.2552	0.2093	0.2535	0.2138	0.1770	0.1518	0.1339
8.018	0.3319	0.2548	0.2097	0.2535	0.2140	0.1770	0.1516	0.1331
8.986	0.3326	0.2554	0.2111	0.2530	0.2140	0.1768	0.1514	0.1329
10.012	0.3329	0.2565	0.2144	0.2506	0.2136	0.1765	0.1509	0.1324

Table A57. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 26

$\left[\text{Top surface only; dry power; } A_t = 2.962 \text{ in}^2;\ A_e/A_t = 1.79;\ A_{ej}/A_t = 0.25;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.3537	0.3574	0.3568	0.3564	0.3769	0.4151	0.4514	0.4851
2.993	0.1516	0.1530	0.1530	0.1939	0.1979	0.1562	0.2673	0.3184
3.998	0.1234	0.1246	0.1240	0.2267	0.2007	0.1565	0.1260	0.2294
4.999	0.1099	0.1105	0.1099	0.2410	0.2004	0.1568	0.1266	0.1090
5.994	0.1092	0.1097	0.1092	0.2418	0.2008	0.1570	0.1268	0.1049
6.978	0.1091	0.1092	0.1086	0.2432	0.2007	0.1566	0.1266	0.1049
7.987	0.1086	0.1089	0.1081	0.2436	0.2007	0.1568	0.1267	0.1049
8.983	0.1080	0.1083	0.1076	0.2446	0.2005	0.1566	0.1265	0.1048
9.994	0.1077	0.1078	0.1071	0.2457	0.2006	0.1566	0.1266	0.1047
				$\omega\sqrt{\tau} = 0.02$				
1.996	0.3961	0.3906	0.3888	0.3914	0.4018	0.4298	0.4608	0.4903
3.000	0.2031	0.1938	0.1921	0.1941	0.1919	0.1588	0.2767	0.3246
4.020	0.1942	0.1872	0.1862	0.1884	0.1924	0.1573	0.1286	0.2240
4.994	0.1965	0.1893	0.1878	0.1900	0.1921	0.1576	0.1289	0.1205
6.010	0.1937	0.1871	0.1857	0.1879	0.1926	0.1576	0.1288	0.1074
6.998	0.1917	0.1854	0.1842	0.1868	0.1932	0.1576	0.1288	0.1071
7.994	0.1921	0.1858	0.1843	0.1869	0.1931	0.1577	0.1289	0.1072
8.986	0.1975	0.1898	0.1879	0.1903	0.1923	0.1578	0.1293	0.1076
9.993	0.1931	0.1864	0.1849	0.1875	0.1931	0.1576	0.1288	0.1071
				$\omega\sqrt{\tau} = 0.05$				
1.988	0.4440	0.4194	0.4143	0.4182	0.4210	0.4372	0.4660	0.4943
2.993	0.2912	0.2610	0.2513	0.2676	0.2747	0.2851	0.3057	0.3271
3.997	0.2510	0.2214	0.2105	0.2166	0.1905	0.1587	0.1327	0.2287
4.996	0.2498	0.2201	0.2092	0.2159	0.1907	0.1589	0.1325	0.1317
5.981	0.2488	0.2190	0.2081	0.2157	0.1906	0.1588	0.1327	0.1123
6.990	0.2481	0.2184	0.2070	0.2157	0.1906	0.1585	0.1325	0.1122
7.987	0.2468	0.2175	0.2064	0.2153	0.1906	0.1586	0.1326	0.1122
8.988	0.2472	0.2175	0.2059	0.2156	0.1907	0.1585	0.1325	0.1121
9.998	0.2468	0.2172	0.2060	0.2156	0.1907	0.1583	0.1324	0.1123
				$\omega\sqrt{\tau} = 0.08$				
1.997	0.4699	0.4262	0.4148	0.4235	0.4333	0.4450	0.4688	0.4935
2.990	0.3151	0.2521	0.2052	0.2385	0.2051	0.1881	0.2958	0.3296
3.989	0.3119	0.2487	0.1995	0.2364	0.1998	0.1639	0.1374	0.2238
4.987	0.3107	0.2478	0.1979	0.2342	0.1987	0.1634	0.1374	0.1264
5.995	0.3099	0.2476	0.1957	0.2339	0.1986	0.1629	0.1370	0.1176
7.002	0.3088	0.2468	0.1945	0.2339	0.1986	0.1625	0.1365	0.1168
8.001	0.3092	0.2471	0.1942	0.2342	0.1986	0.1624	0.1365	0.1168
8.987	0.3089	0.2468	0.1949	0.2341	0.1986	0.1623	0.1364	0.1166
9.987	0.3089	0.2467	0.1947	0.2342	0.1984	0.1620	0.1362	0.1165

Table A58. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 27

$\left[\text{Top surface only; AB power; } A_t = 5.499 \text{ in}^2\text{; } A_e/A_t = 1.66\text{; } A_{ej}/A_t = 0.13\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.991	0.2482	0.2466	0.2501	0.2674	0.3638	0.4242	0.4616	0.4914
2.996	0.1557	0.1595	0.1585	0.2226	0.2432	0.2044	0.1675	0.3116
4.005	0.1263	0.1284	0.1280	0.2555	0.2462	0.2050	0.1679	0.1421
4.991	0.1251	0.1264	0.1256	0.2563	0.2462	0.2050	0.1680	0.1402
6.000	0.1248	0.1255	0.1248	0.2561	0.2461	0.2052	0.1681	0.1406
				$\omega\sqrt{\tau}$ = 0.01				
1.998	0.4012	0.3875	0.3917	0.3927	0.4026	0.4317	0.4609	0.4881
3.008	0.2020	0.1923	0.1937	0.2038	0.2372	0.2044	0.1688	0.3068
3.996	0.2019	0.1911	0.1936	0.2027	0.2371	0.2043	0.1689	0.1443
4.985	0.2035	0.1921	0.1952	0.2025	0.2367	0.2045	0.1693	0.1413
5.994	0.2023	0.1903	0.1941	0.2023	0.2377	0.2046	0.1690	0.1411
				$\omega\sqrt{\tau}$ = 0.03				
1.999	0.4356	0.3925	0.4084	0.4162	0.4187	0.4386	0.4640	0.4893
3.009	0.2716	0.2071	0.2176	0.2390	0.2318	0.2044	0.1717	0.3059
3.993	0.2685	0.2043	0.2171	0.2373	0.2318	0.2043	0.1714	0.1535
4.989	0.2678	0.2025	0.2173	0.2366	0.2311	0.2041	0.1715	0.1444
5.989	0.2659	0.2016	0.2183	0.2364	0.2323	0.2042	0.1711	0.1441
				$\omega\sqrt{\tau}$ = 0.05				
1.995	0.4669	0.3826	0.3889	0.4273	0.4325	0.4465	0.4688	0.4916
2.985	0.3745	0.2266	0.2011	0.2671	0.2392	0.2058	0.1803	0.3141
3.995	0.3760	0.2287	0.2005	0.2672	0.2390	0.2057	0.1741	0.1753
4.994	0.3705	0.2246	0.1925	0.2674	0.2386	0.2054	0.1738	0.1474
5.995	0.3731	0.2255	0.1875	0.2689	0.2393	0.2055	0.1736	0.1472

Table A59. Shroud Static Pressure Ratio $(p/p_{t,j})$ for Configuration 28

$\left[\text{Top surface only; AB power; } A_t = 5.079 \text{ in}^2\text{; } A_e/A_t = 1.79\text{; } A_{ej}/A_t = 0.14\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

NPR	x/L = -0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
$\omega\sqrt{\tau} = 0.00$								
1.983	0.3951	0.3911	0.3874	0.3850	0.4116	0.4420	0.4684	0.4912
2.997	0.1541	0.1543	0.1540	0.2048	0.2290	0.1910	0.1609	0.3140
3.983	0.1255	0.1261	0.1255	0.2392	0.2323	0.1912	0.1550	0.1962
4.996	0.1186	0.1187	0.1186	0.2456	0.2320	0.1916	0.1558	0.1283
5.996	0.1180	0.1183	0.1176	0.2478	0.2325	0.1914	0.1553	0.1281
$\omega\sqrt{\tau} = 0.01$								
2.005	0.4043	0.3929	0.3933	0.3903	0.4117	0.4402	0.4655	0.4873
2.985	0.1956	0.1858	0.1868	0.1954	0.2237	0.1910	0.1640	0.3136
3.997	0.1958	0.1855	0.1866	0.1939	0.2234	0.1910	0.1564	0.1934
4.994	0.1970	0.1854	0.1880	0.1941	0.2227	0.1912	0.1569	0.1297
6.003	0.2004	0.1863	0.1905	0.1959	0.2215	0.1909	0.1571	0.1302
$\omega\sqrt{\tau} = 0.03$								
2.004	0.4268	0.3924	0.4012	0.4028	0.4175	0.4435	0.4676	0.4886
3.002	0.2537	0.1977	0.2054	0.2252	0.2187	0.1913	0.1750	0.3118
3.993	0.2520	0.1948	0.2041	0.2244	0.2188	0.1911	0.1585	0.2006
4.999	0.2587	0.1919	0.2038	0.2270	0.2186	0.1911	0.1587	0.1321
6.004	0.2474	0.1925	0.2048	0.2219	0.2179	0.1908	0.1585	0.1320
$\omega\sqrt{\tau} = 0.05$								
1.997	0.4576	0.3746	0.3935	0.4132	0.4285	0.4520	0.4734	0.4923
3.001	0.3570	0.2217	0.1922	0.2533	0.2256	0.1926	0.2150	0.3157
4.994	0.3416	0.2113	0.1663	0.2525	0.2246	0.1922	0.1603	0.1343
6.001	0.3387	0.2093	0.1618	0.2521	0.2249	0.1926	0.1605	0.1347

Table A60. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 1

$\left[\text{Top surface only; dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9779	0.9943	0.9895	0.9714	1.0675	1.1941	1.3124	1.4156
2.989	0.9755	0.9969	0.9966	1.1936	1.3471	1.1081	0.9384	1.8533
4.011	0.9773	0.9979	0.9957	1.7646	1.7148	1.3942	1.1796	1.0731
5.003	0.9781	1.0002	0.9923	1.9459	1.8058	1.4653	1.2500	1.1392
5.991	0.9815	0.9966	0.9918	1.9648	1.8223	1.4726	1.2476	1.1258
7.010	0.9842	0.9943	0.9907	1.9870	1.8284	1.4776	1.2642	1.1514
8.009	0.9878	0.9934	0.9923	2.0013	1.8525	1.4936	1.2662	1.1465
9.000	0.9914	0.9954	0.9926	2.0274	1.8520	1.4968	1.2821	1.1745
9.994	0.9931	0.9950	0.9928	2.0387	1.8672	1.5063	1.2811	1.1605
				$\omega\sqrt{\tau} = 0.02$				
1.981	1.0060	0.9954	0.9934	0.9973	1.0022	1.0729	1.1616	1.2434
2.996	1.0106	0.9631	0.9616	0.9673	0.9693	0.8398	0.8046	1.4089
3.992	1.0056	0.9615	0.9592	0.9641	0.9681	0.8427	0.7235	0.7979
4.988	1.0043	0.9584	0.9547	0.9597	0.9633	0.8327	0.7144	0.6390
6.002	1.0047	0.9606	0.9575	0.9638	0.9826	0.8445	0.7231	0.6464
7.006	1.0032	0.9610	0.9572	0.9646	0.9879	0.8465	0.7246	0.6460
8.001	1.0030	0.9599	0.9558	0.9629	0.9831	0.8430	0.7232	0.6449
9.013	1.0041	0.9617	0.9577	0.9651	0.9879	0.8468	0.7297	0.6540
10.013	1.0035	0.9591	0.9548	0.9630	0.9813	0.8411	0.7257	0.6502
				$\omega\sqrt{\tau} = 0.05$				
2.007	1.0035	0.9453	0.9414	0.9598	0.9623	0.9940	1.0586	1.1234
2.983	1.0027	0.8590	0.8321	0.8507	0.7588	0.6986	0.9608	1.0918
3.996	1.0015	0.8625	0.8350	0.8564	0.7648	0.6589	0.5769	0.6505
4.978	1.0000	0.8565	0.8264	0.8535	0.7609	0.6539	0.5728	0.5246
5.995	1.0000	0.8613	0.8331	0.8603	0.7691	0.6609	0.5793	0.5285
7.001	0.9995	0.8606	0.8325	0.8603	0.7690	0.6613	0.5820	0.5310
7.989	0.9997	0.8613	0.8345	0.8621	0.7712	0.6628	0.5831	0.5325
8.994	0.9991	0.8600	0.8351	0.8622	0.7713	0.6612	0.5797	0.5297
10.005	0.9998	0.8607	0.8382	0.8628	0.7713	0.6625	0.5836	0.5326
				$\omega\sqrt{\tau} = 0.08$				
1.989	1.0003	0.8673	0.8426	0.9067	0.9306	0.9451	0.9836	1.0297
2.992	0.9981	0.7616	0.6469	0.7459	0.6361	0.5399	0.7184	0.8681
3.983	0.9964	0.7615	0.6406	0.7528	0.6431	0.5447	0.4804	0.5756
4.998	0.9975	0.7608	0.6363	0.7568	0.6454	0.5470	0.4846	0.4490
6.004	0.9974	0.7594	0.6301	0.7566	0.6453	0.5463	0.4840	0.4485
6.993	0.9966	0.7570	0.6219	0.7521	0.6406	0.5421	0.4809	0.4458
7.994	0.9969	0.7581	0.6297	0.7582	0.6466	0.5449	0.4812	0.4484
9.000	0.9965	0.7569	0.6281	0.7571	0.6448	0.5439	0.4814	0.4472
9.996	0.9969	0.7585	0.6345	0.7583	0.6464	0.5455	0.4830	0.4479

Table A61. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 2

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau}$ = 0.00				
1.995	0.9927	0.9991	1.0002	1.1002	1.4254	1.3615	1.1654	1.0691
2.980	0.9880	1.0110	0.9836	2.5921	1.8389	1.3989	1.0763	1.5120
4.001	0.9922	0.9914	0.9003	3.1956	2.3282	1.7592	1.3158	1.0032
4.998	0.9926	0.9873	0.8922	3.1891	2.3167	1.7553	1.3128	1.0030
5.997	0.9927	0.9938	0.8958	3.1829	2.3085	1.7487	1.3067	0.9964
6.996	0.9923	0.9903	0.9054	3.1846	2.3133	1.7495	1.3085	0.9972
7.994	0.9920	0.9891	0.9084	3.1778	2.3012	1.7418	1.3009	0.9910
8.998	0.9927	0.9869	0.9060	3.1677	2.2797	1.7291	1.2935	0.9868
10.007	0.9931	0.9886	0.9146	3.1701	2.2860	1.7309	1.2941	0.9859
				$\omega\sqrt{\tau}$ = 0.02				
1.989	0.9940	0.9985	0.9919	1.0625	1.3804	1.2886	1.1457	1.0289
3.002	1.0011	0.9929	0.9865	2.2512	1.6677	1.2275	0.9160	1.3886
4.005	1.0007	0.9943	0.9835	2.4416	1.7451	1.2890	0.9612	0.7341
5.011	1.0032	0.9973	0.9916	2.1678	1.6286	1.1994	0.8921	0.6828
6.007	1.0031	0.9988	0.9929	2.2076	1.6448	1.2111	0.9011	0.6887
6.989	0.9997	0.9955	0.9926	2.2030	1.6422	1.2095	0.9009	0.6899
7.998	0.9999	0.9968	0.9928	2.2365	1.6570	1.2223	0.9127	0.6975
9.002	0.9999	0.9962	0.9929	2.1973	1.6402	1.2114	0.9048	0.6914
10.017	0.9992	0.9961	0.9936	2.1476	1.6211	1.1966	0.8926	0.6829
				$\omega\sqrt{\tau}$ = 0.05				
1.982	1.0005	0.9871	0.9878	1.0076	1.2258	1.1824	1.0913	0.9925
3.001	1.0021	0.9873	0.9885	1.2497	1.2098	0.9034	0.6750	0.9481
4.003	0.9998	0.9850	0.9877	1.2603	1.2082	0.9039	0.6747	0.5171
4.974	0.9992	0.9840	0.9878	1.2467	1.1909	0.8942	0.6676	0.5126
5.986	0.9994	0.9868	0.9901	1.3160	1.2302	0.9205	0.6856	0.5244
7.000	0.9976	0.9838	0.9872	1.2650	1.1907	0.8954	0.6694	0.5150
7.997	0.9981	0.9843	0.9878	1.2868	1.2037	0.9045	0.6758	0.5191
8.999	0.9967	0.9843	0.9880	1.3006	1.2063	0.9076	0.6794	0.5233
10.006	0.9971	0.9838	0.9876	1.3037	1.2094	0.9090	0.6795	0.5226
				$\omega\sqrt{\tau}$ = 0.08				
1.991	0.9987	0.9682	0.9642	0.9850	1.0866	1.0583	1.0185	0.9255
3.000	0.9992	0.9554	0.9517	0.9787	0.9452	0.7275	0.5498	0.7364
4.003	0.9977	0.9542	0.9488	0.9779	0.9395	0.7243	0.5476	0.4237
4.974	0.9941	0.9585	0.9559	1.0061	0.9772	0.7505	0.5654	0.4376
6.015	0.9963	0.9540	0.9493	0.9819	0.9439	0.7286	0.5500	0.4261
6.994	0.9958	0.9548	0.9501	0.9836	0.9469	0.7308	0.5521	0.4285
7.998	0.9955	0.9543	0.9491	0.9825	0.9438	0.7294	0.5514	0.4282
8.999	0.9956	0.9557	0.9509	0.9867	0.9514	0.7348	0.5548	0.4300
9.995	0.9949	0.9541	0.9496	0.9841	0.9466	0.7316	0.5527	0.4289

Table A61. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.995	0.9745	0.9947	0.9934	1.0116	1.0506	1.1060	1.1741
2.980	0.9374	1.0055	1.0648	1.1670	1.3050	1.4546	1.5974
4.001	1.0075	0.9799	1.0605	1.2858	1.4723	1.8595	1.6933
4.998	0.9997	0.9723	1.0433	1.2532	1.4662	1.8328	1.6575
5.997	0.9952	0.9752	1.0394	1.2448	1.4611	1.8293	1.6539
6.996	0.9958	0.9810	1.0233	1.2328	1.4650	1.8200	1.6562
7.994	0.9956	0.9790	1.0072	1.2190	1.4624	1.8005	1.6506
8.998	0.9954	0.9790	0.9949	1.1909	1.4469	1.7580	1.6334
10.007	0.9951	0.9791	0.9974	1.1970	1.4494	1.7617	1.6344
				$\omega\sqrt{\tau} = 0.02$			
1.989	0.9868	0.9835	0.9770	0.9881	1.0174	1.0587	1.1194
3.002	0.8697	0.8977	0.9517	0.9903	1.1134	1.2954	1.4689
4.005	0.8360	0.8668	0.9190	0.9325	0.9582	1.2270	1.1714
5.011	0.7823	0.8129	0.8819	0.8594	0.8831	1.0515	0.9968
6.007	0.7925	0.8242	0.8892	0.8696	0.9004	1.0485	0.9824
6.989	0.7939	0.8250	0.8915	0.8740	0.9090	1.0215	0.9692
7.998	0.8051	0.8346	0.9004	0.8875	0.9228	1.0042	0.9658
9.002	0.8018	0.8305	0.8991	0.8862	0.9174	0.9674	0.9338
10.017	0.7914	0.8206	0.8919	0.8757	0.9054	0.9509	0.9102
				$\omega\sqrt{\tau} = 0.05$			
1.982	0.8858	0.9437	0.9441	0.9547	0.9814	1.0028	1.0359
3.001	0.6675	0.6590	0.8148	0.8503	0.8911	0.9503	1.0327
4.003	0.6439	0.5741	0.7428	0.7014	0.6246	0.8025	0.7880
4.974	0.6416	0.5627	0.7350	0.6947	0.6164	0.7842	0.7199
5.986	0.6436	0.5938	0.7482	0.7078	0.6314	0.7978	0.7272
7.000	0.6389	0.5387	0.7387	0.7041	0.6291	0.7797	0.7066
7.997	0.6393	0.5540	0.7455	0.7105	0.6340	0.7851	0.7132
8.999	0.6388	0.5464	0.7458	0.7136	0.6428	0.7846	0.7099
10.006	0.6376	0.5522	0.7488	0.7158	0.6430	0.7857	0.7118
				$\omega\sqrt{\tau} = 0.08$			
1.991	0.8005	0.8209	0.8979	0.8932	0.9061	0.9433	0.9867
3.000	0.6344	0.3946	0.6469	0.6691	0.7419	0.7911	0.8283
4.003	0.6337	0.3706	0.6322	0.6166	0.6101	0.6836	0.6192
4.974	0.6355	0.3762	0.6487	0.6265	0.6042	0.6992	0.6058
6.015	0.6329	0.3515	0.6374	0.6202	0.6090	0.6822	0.5858
6.994	0.6321	0.3668	0.6389	0.6257	0.6116	0.6827	0.5874
7.998	0.6316	0.3071	0.6418	0.6274	0.6147	0.6797	0.5847
8.999	0.6314	0.2724	0.6511	0.6319	0.6142	0.6834	0.5868
9.995	0.6306	0.2708	0.6463	0.6307	0.6157	0.6793	0.5834

Table A61. Concluded

(c) Side surface

				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau}$ = 0.00			
1.995	0.9922	0.9901	1.1131	1.1922		1.1231	1.1614
2.980	0.9937	0.9850	1.3785	1.4642		1.3352	1.2416
4.001	0.9790	0.9857	2.0058	1.7872		1.1321	1.0992
4.998	0.9786	0.9880	1.9956	1.7893		1.1381	0.9505
5.997	0.9770	0.9885	1.9856	1.7822		1.1219	0.9438
6.996	0.9749	0.9876	1.9702	1.7780		1.1204	0.9447
7.994	0.9811	0.9882	1.9572	1.7669		1.1191	0.9412
8.998	0.9820	0.9909	1.9342	1.7487		1.1187	0.9402
10.007	0.9784	0.9875	1.9358	1.7551		1.1107	0.9324
				$\omega\sqrt{\tau}$ = 0.02			
1.989	0.9883	0.9902	1.0798	1.1556		1.0818	1.0984
3.002	0.9739	0.9854	1.0916	1.1508		0.8732	1.4697
4.005	0.9742	0.9877	1.1857	1.2328		0.8638	0.8202
5.011	0.9682	0.9815	1.0507	1.1015		0.8021	0.8205
6.007	0.9695	0.9823	1.0770	1.1204		0.8012	0.8071
6.989	0.9682	0.9808	1.0784	1.1083		0.7963	0.8237
7.998	0.9715	0.9811	1.0662	1.1256		0.8047	0.8384
9.002	0.9703	0.9808	1.0467	1.1088		0.7954	0.8739
10.017	0.9679	0.9783	1.0331	1.0880		0.7831	0.8827
				$\omega\sqrt{\tau}$ = 0.05			
1.982	0.9716	0.9713	0.9729	1.0998		1.0307	1.0128
3.001	0.9010	0.9361	0.8302	0.7306		0.8094	1.0397
4.003	0.8964	0.9346	0.8267	0.7242		0.5738	0.7352
4.974	0.8915	0.9295	0.8229	0.7189		0.5684	0.7109
5.986	0.9014	0.9361	0.8363	0.7433		0.5848	0.7461
7.000	0.8917	0.9293	0.8206	0.7180		0.5664	0.7141
7.997	0.8941	0.9304	0.8227	0.7192		0.5685	0.7257
8.999	0.8954	0.9314	0.8252	0.7224		0.5733	0.7250
10.006	0.8954	0.9304	0.8234	0.7234		0.5690	0.7235
				$\omega\sqrt{\tau}$ = 0.08			
1.991	0.9193	0.9348	0.9396	0.9812		0.9738	0.9693
3.000	0.8031	0.8831	0.7302	0.6072		0.6878	0.8223
4.003	0.7979	0.8790	0.7273	0.6066		0.4538	0.6019
4.974	0.8138	0.8854	0.7422	0.6227		0.4694	0.5758
6.015	0.7993	0.8788	0.7289	0.6089		0.4556	0.5627
6.994	0.8006	0.8793	0.7290	0.6079		0.4561	0.5667
7.998	0.7969	0.8776	0.7274	0.6058		0.4539	0.5674
8.999	0.7995	0.8791	0.7292	0.6076		0.4541	0.5704
9.995	0.7970	0.8791	0.7270	0.6056		0.4525	0.5690

Table A62. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 3

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.47\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.019	0.9903	1.0082	0.9947	1.0087	1.3996	1.4137	1.2276	1.0843
3.005	0.9917	1.0006	0.9947	2.1453	1.8177	1.3761	1.0585	1.2403
3.993	0.9905	1.0083	0.9641	3.2346	2.2105	1.6696	1.2554	0.9618
5.012	0.9934	0.9916	0.9481	3.4135	2.3743	1.8046	1.3554	1.0378
5.991	0.9938	0.9890	0.9406	3.4122	2.3575	1.7973	1.3492	1.0333
6.990	0.9940	0.9903	0.9421	3.4070	2.3496	1.7931	1.3455	1.0300
8.013	0.9937	0.9906	0.9407	3.4093	2.3524	1.7957	1.3472	1.0318
9.004	0.9927	0.9910	0.9395	3.4047	2.3483	1.7931	1.3438	1.0271
9.977	0.9938	0.9921	0.9423	3.3968	2.3391	1.7866	1.3393	1.0234
				$\omega\sqrt{\tau} = 0.02$				
1.998	1.0001	0.9952	0.9973	0.9934	1.3032	1.2892	1.1697	1.0132
4.009	1.0107	1.0065	1.0096	1.6889	1.6099	1.1913	0.8852	0.6783
4.984	1.0042	1.0010	1.0009	1.7954	1.6465	1.2177	0.9029	0.6897
6.027	1.0013	0.9976	0.9975	1.7407	1.6104	1.1969	0.8887	0.6806
7.997	1.0004	0.9974	0.9973	1.8182	1.6369	1.2162	0.9047	0.6908
8.999	1.0000	0.9964	0.9970	1.6887	1.5788	1.1770	0.8750	0.6683
9.970	0.9988	0.9955	0.9959	1.8356	1.6444	1.2198	0.9085	0.6943
				$\omega\sqrt{\tau} = 0.05$				
1.994	0.9977	0.9833	0.9846	0.9914	1.1409	1.1527	1.0838	0.9760
3.000	0.9979	0.9750	0.9830	1.0013	1.1404	0.9051	0.7047	0.5833
3.999	0.9977	0.9788	0.9844	1.0344	1.1764	0.9028	0.6772	0.5210
4.992	0.9987	0.9791	0.9837	1.0383	1.1689	0.8997	0.6747	0.5195
5.988	0.9987	0.9783	0.9831	1.0408	1.1632	0.8968	0.6730	0.5179
6.990	0.9984	0.9790	0.9842	1.0556	1.1743	0.9051	0.6793	0.5227
8.004	0.9985	0.9785	0.9831	1.0534	1.1663	0.9008	0.6757	0.5195
9.003	0.9978	0.9770	0.9822	1.0515	1.1593	0.8956	0.6728	0.5187
10.013	0.9977	0.9786	0.9832	1.0670	1.1746	0.9069	0.6803	0.5238
				$\omega\sqrt{\tau} = 0.08$				
1.990	0.9959	0.9567	0.9624	0.9743	1.0227	1.0251	1.0016	0.9210
2.994	0.9960	0.9391	0.9422	0.9488	0.9057	0.7234	0.5517	0.7143
4.005	0.9959	0.9419	0.9421	0.9506	0.9111	0.7284	0.5551	0.4306
4.996	0.9963	0.9419	0.9426	0.9520	0.9131	0.7304	0.5559	0.4319
6.003	0.9964	0.9398	0.9405	0.9497	0.9060	0.7262	0.5532	0.4296
6.972	0.9966	0.9412	0.9423	0.9518	0.9130	0.7319	0.5566	0.4318
8.995	0.9959	0.9417	0.9421	0.9525	0.9141	0.7323	0.5571	0.4326
10.001	0.9955	0.9387	0.9389	0.9488	0.9035	0.7252	0.5524	0.4293

Table A62. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.019	0.9634	0.9983	0.9956	1.0130	1.0528	1.1142	1.1850
3.005	0.9431	1.0095	1.0542	1.1401	1.2440	1.3549	1.4852
3.993	0.9806	0.9676	1.0072	1.1789	1.1629	1.6664	1.6024
5.012	1.0003	0.9635	1.0897	1.2992	1.2954	1.8730	1.7179
5.991	0.9980	0.9559	1.0584	1.2566	1.3083	1.8420	1.7169
6.990	0.9981	0.9579	1.0423	1.2365	1.3194	1.8178	1.7112
8.013	0.9962	0.9581	1.0440	1.2388	1.3206	1.8235	1.7164
9.004	0.9945	0.9660	1.0428	1.2432	1.3192	1.8150	1.7123
9.977	0.9942	0.9723	1.0250	1.2212	1.3327	1.7815	1.7017
				$\omega\sqrt{\tau} = 0.02$			
1.998	0.9801	0.9804	0.9743	0.9790	1.0019	1.0342	1.0872
4.009	0.7875	0.7640	0.8708	0.8490	0.7303	0.9492	1.0526
4.984	0.7967	0.7808	0.8796	0.8619	0.7546	0.9568	1.0284
6.027	0.7821	0.7621	0.8655	0.8379	0.7438	0.9172	0.9719
7.997	0.7930	0.7801	0.8746	0.8467	0.7659	0.9300	0.9700
8.999	0.7718	0.7530	0.8568	0.8277	0.7391	0.8817	0.9239
9.970	0.7950	0.7859	0.8757	0.8452	0.7793	0.9204	0.9457
				$\omega\sqrt{\tau} = 0.05$			
1.994	0.8830	0.9140	0.9210	0.9215	0.9451	0.9789	1.0197
3.000	0.7576	0.7126	0.8422	0.8440	0.8487	0.8642	0.9185
3.999	0.7004	0.5249	0.7286	0.6974	0.5978	0.6661	0.7799
4.992	0.6987	0.5134	0.7251	0.6973	0.5999	0.6482	0.7312
5.988	0.6970	0.4990	0.7237	0.7002	0.6034	0.6494	0.7178
6.990	0.6960	0.4953	0.7303	0.7084	0.6115	0.6493	0.7187
8.004	0.6939	0.4903	0.7303	0.7083	0.6115	0.6457	0.7153
9.003	0.6934	0.4793	0.7253	0.7042	0.6094	0.6514	0.7072
10.013	0.6932	0.4880	0.7342	0.7132	0.6169	0.6478	0.7127
				$\omega\sqrt{\tau} = 0.08$			
1.990	0.8186	0.7965	0.8790	0.8729	0.8834	0.9097	0.9602
2.994	0.6966	0.4076	0.6215	0.6590	0.7176	0.7760	0.8184
4.005	0.6945	0.3572	0.6180	0.6107	0.5762	0.6649	0.6118
4.996	0.6929	0.3781	0.6097	0.6125	0.5775	0.6628	0.5903
6.003	0.6901	0.4101	0.5986	0.6131	0.5832	0.6590	0.5863
6.972	0.6899	0.4295	0.6000	0.6178	0.5845	0.6603	0.5894
8.995	0.6887	0.3956	0.6071	0.6193	0.5853	0.6581	0.5882
10.001	0.6876	0.3877	0.6020	0.6162	0.5895	0.6528	0.5824

Table A62. Concluded

(c) Side surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.019	0.9885	0.9981	1.0961	1.2089		1.1351	1.1832
3.005	0.9935	1.0008	1.2495	1.3326		1.4079	1.3127
3.993	0.9842	0.9984	1.6883	1.6747		1.0806	0.9394
5.012	0.9762	0.9948	1.9354	1.8170		1.1521	0.9583
5.991	0.9829	0.9984	1.9104	1.8126		1.1585	0.9628
6.990	0.9845	0.9966	1.9035	1.8055		1.1549	0.9639
8.013	0.9814	0.9961	1.9058	1.8083		1.1558	0.9647
9.004	0.9832	0.9946	1.8983	1.7975		1.1476	0.9589
9.977	0.9854	0.9936	1.8720	1.7880		1.1442	0.9615
				$\omega\sqrt{\tau}$ = 0.02			
1.998	0.9940	0.9955	1.0228	1.1568		1.0697	1.0637
4.009	0.9776	0.9886	0.9826	0.9918		0.7622	0.7560
4.984	0.9729	0.9825	1.0024	1.0291		0.7806	0.7041
6.027	0.9683	0.9762	0.9839	1.0054		0.7720	0.6961
7.997	0.9697	0.9761	1.0003	1.0301		0.7796	0.6934
8.999	0.9639	0.9718	0.9598	0.9746		0.7448	0.6842
9.970	0.9691	0.9744	0.9916	1.0253		0.7735	0.6898
				$\omega\sqrt{\tau}$ = 0.05			
1.994	0.9610	0.9641	0.9686	1.0522		1.0079	1.0039
3.000	0.9088	0.9339	0.8613	0.7956		0.9740	0.9446
3.999	0.8928	0.9270	0.8251	0.7077		0.5414	0.7303
4.992	0.8918	0.9249	0.8234	0.7055		0.5388	0.6536
5.988	0.8903	0.9226	0.8216	0.7041		0.5352	0.6439
6.990	0.8921	0.9236	0.8247	0.7079		0.5393	0.6507
8.004	0.8908	0.9225	0.8217	0.7040		0.5330	0.6453
9.003	0.8881	0.9195	0.8194	0.7009		0.5337	0.6423
10.013	0.8922	0.9222	0.8215	0.7023		0.5370	0.6516
				$\omega\sqrt{\tau}$ = 0.08			
1.990	0.9067	0.9257	0.9290	0.9527		0.9494	0.9598
2.994	0.7931	0.8713	0.7294	0.6068		0.7321	0.8009
4.005	0.7951	0.8719	0.7298	0.6083		0.4417	0.6010
4.996	0.7956	0.8711	0.7301	0.6085		0.4422	0.5248
6.003	0.7922	0.8682	0.7267	0.6063		0.4383	0.5191
6.972	0.7943	0.8699	0.7289	0.6087		0.4386	0.5234
8.995	0.7939	0.8682	0.7283	0.6072		0.4387	0.5270
10.001	0.7875	0.8648	0.7237	0.6025		0.4354	0.5253

Table A63. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 4

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.21\text{; } \delta = 18°\text{; } h_u/h_l = 1.99\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9934	1.0070	0.9929	0.9932	1.3877	1.4064	1.2289	1.1075
3.001	0.9953	1.0024	0.9910	2.2409	1.9131	1.4444	1.1146	1.3232
4.004	0.9961	0.9790	0.9516	3.4902	2.3807	1.8086	1.3636	1.0461
5.003	0.9939	0.9882	0.9493	3.4921	2.3749	1.8082	1.3623	1.0461
5.993	0.9944	0.9920	0.9577	3.4772	2.3717	1.8027	1.3554	1.0379
7.004	0.9947	0.9920	0.9588	3.4759	2.3679	1.8016	1.3547	1.0364
7.995	0.9964	0.9928	0.9550	3.4823	2.3681	1.8056	1.3588	1.0405
8.996	0.9961	0.9907	0.9520	3.4812	2.3632	1.8053	1.3567	1.0381
10.001	0.9969	0.9942	0.9579	3.4696	2.3623	1.8018	1.3542	1.0358
				$\omega\sqrt{\tau} = 0.02$				
2.001	1.0013	0.9984	0.9946	0.9906	1.2719	1.2901	1.1762	1.0170
2.990	1.0060	0.9971	0.9989	1.1467	1.4166	1.1095	0.8747	1.1197
3.995	1.0042	1.0043	1.0004	1.6066	1.6361	1.2149	0.9020	0.6922
4.996	1.0045	1.0016	1.0003	1.6263	1.6440	1.2210	0.9046	0.6922
6.006	1.0019	0.9997	0.9984	1.6184	1.6286	1.2154	0.9022	0.6909
6.999	1.0017	0.9990	0.9986	1.5975	1.6126	1.2060	0.8963	0.6851
7.999	1.0016	0.9988	0.9992	1.6455	1.6325	1.2194	0.9062	0.6928
9.006	1.0004	0.9979	0.9982	1.6342	1.6264	1.2144	0.9030	0.6900
10.004	1.0003	0.9971	0.9973	1.6064	1.6103	1.2042	0.8956	0.6847
				$\omega\sqrt{\tau} = 0.05$				
1.995	1.0007	0.9839	0.9871	0.9936	1.1435	1.1734	1.1019	0.9716
3.004	0.9997	0.9766	0.9806	0.9908	1.1334	0.9122	0.7112	0.5873
3.998	0.9990	0.9776	0.9817	0.9971	1.1555	0.8986	0.6770	0.5215
5.001	0.9994	0.9780	0.9820	1.0003	1.1548	0.9008	0.6773	0.5210
6.013	0.9989	0.9782	0.9829	1.0062	1.1606	0.9049	0.6807	0.5244
7.003	0.9982	0.9766	0.9809	1.0025	1.1447	0.8957	0.6741	0.5190
8.017	0.9980	0.9768	0.9812	1.0078	1.1529	0.9016	0.6780	0.5218
9.006	0.9981	0.9770	0.9818	1.0131	1.1582	0.9043	0.6808	0.5248
9.995	0.9976	0.9752	0.9806	1.0099	1.1493	0.8991	0.6769	0.5216
				$\omega\sqrt{\tau} = 0.08$				
1.992	0.9983	0.9601	0.9641	0.9744	1.0134	1.0302	1.0080	0.9222
3.007	0.9988	0.9376	0.9393	0.9412	0.8879	0.7201	0.5524	0.6982
3.995	0.9971	0.9378	0.9389	0.9429	0.8922	0.7234	0.5547	0.4310
4.995	0.9974	0.9375	0.9395	0.9440	0.8948	0.7272	0.5558	0.4313
6.000	0.9969	0.9375	0.9392	0.9440	0.8952	0.7280	0.5565	0.4319
7.000	0.9963	0.9380	0.9402	0.9449	0.8973	0.7292	0.5578	0.4337
7.993	0.9958	0.9377	0.9401	0.9457	0.8991	0.7306	0.5588	0.4347
9.001	0.9957	0.9354	0.9373	0.9423	0.8900	0.7237	0.5541	0.4316
10.012	0.9955	0.9363	0.9383	0.9441	0.8956	0.7285	0.5573	0.4339

Table A63. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9608	1.0019	0.9949	1.0117	1.0507	1.1114	1.1799
3.001	0.9197	1.0453	1.1057	1.2031	1.3132	1.4272	1.5610
4.004	0.9992	0.9546	1.1096	1.3117	1.2382	1.8536	1.7475
5.003	0.9972	0.9525	1.0924	1.2948	1.2430	1.8446	1.7357
5.993	0.9973	0.9509	1.0821	1.2821	1.2475	1.8199	1.7337
7.004	0.9970	0.9502	1.0683	1.2630	1.2506	1.8011	1.7311
7.995	0.9973	0.9522	1.0643	1.2600	1.2514	1.8081	1.7357
8.996	0.9961	0.9543	1.0619	1.2584	1.2555	1.7971	1.7347
10.001	0.9955	0.9625	1.0483	1.2404	1.2590	1.7697	1.7225
				$\omega\sqrt{\tau} = 0.02$			
2.001	0.9788	0.9769	0.9686	0.9719	0.9938	1.0275	1.0818
2.990	0.9714	0.9728	0.9587	0.9549	0.9671	1.0084	1.1032
3.995	0.8015	0.7566	0.8729	0.8562	0.7410	0.8584	1.0867
4.996	0.8020	0.7663	0.8747	0.8642	0.7470	0.8169	1.0337
6.006	0.7970	0.7563	0.8681	0.8478	0.7470	0.8405	0.9937
6.999	0.7914	0.7505	0.8625	0.8404	0.7430	0.8303	0.9675
7.999	0.7963	0.7607	0.8678	0.8455	0.7502	0.8532	0.9755
9.006	0.7954	0.7598	0.8666	0.8440	0.7511	0.8439	0.9600
10.004	0.7899	0.7536	0.8617	0.8385	0.7461	0.8293	0.9432
				$\omega\sqrt{\tau} = 0.05$			
1.995	0.9207	0.9276	0.9228	0.9227	0.9447	0.9788	1.0269
3.004	0.7747	0.7061	0.8294	0.8298	0.8377	0.8573	0.9165
3.998	0.7238	0.5093	0.7192	0.6921	0.5948	0.5825	0.7726
5.001	0.7209	0.5067	0.7186	0.6942	0.5978	0.5657	0.7311
6.013	0.7198	0.4892	0.7223	0.7032	0.6068	0.5693	0.7242
7.003	0.7186	0.4678	0.7204	0.7014	0.6070	0.5796	0.7094
8.017	0.7185	0.4705	0.7250	0.7069	0.6112	0.5748	0.7132
9.006	0.7176	0.4701	0.7262	0.7085	0.6135	0.5772	0.7128
9.995	0.7161	0.4590	0.7262	0.7082	0.6140	0.5818	0.7034
				$\omega\sqrt{\tau} = 0.08$			
1.992	0.8356	0.8024	0.8777	0.8712	0.8822	0.9071	0.9587
3.007	0.7201	0.3978	0.6113	0.6476	0.7067	0.7749	0.8131
3.995	0.7167	0.3538	0.6071	0.6068	0.5717	0.6557	0.6062
4.995	0.7155	0.3577	0.6069	0.6098	0.5707	0.6563	0.5886
6.000	0.7159	0.4063	0.5937	0.6127	0.5763	0.6545	0.5888
7.000	0.7148	0.4234	0.5870	0.6129	0.5794	0.6522	0.5893
7.993	0.7140	0.4002	0.5916	0.6129	0.5790	0.6513	0.5894
9.001	0.7124	0.3937	0.5871	0.6104	0.5835	0.6466	0.5844
10.012	0.7119	0.3868	0.5925	0.6130	0.5836	0.6470	0.5857

Table A63. Concluded

(c) Side surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9880	1.0019	1.1142	1.2018		1.1367	1.1811
3.001	0.9948	1.0034	1.3704	1.4211		1.4248	1.3780
4.004	0.9812	1.0043	1.9199	1.8028		1.1478	1.0334
5.003	0.9839	1.0005	1.9164	1.8047		1.1536	0.9589
5.993	0.9824	0.9899	1.9078	1.8035		1.1416	0.9479
7.004	0.9817	0.9871	1.9014	1.8001		1.1401	0.9485
7.995	0.9839	0.9871	1.9080	1.8013		1.1457	0.9550
8.996	0.9869	0.9888	1.9007	1.7950		1.1432	0.9542
10.001	0.9860	0.9880	1.8840	1.7882		1.1402	0.9566
				$\omega\sqrt{\tau}$ = 0.02			
2.001	0.9950	0.9843	1.0310	1.1465		1.0601	1.0598
2.990	0.9798	0.9810	0.9897	1.0691		1.1625	1.0796
3.995	0.9759	0.9792	1.0098	1.0111		0.7669	0.7234
4.996	0.9748	0.9759	1.0143	1.0148		0.7642	0.6837
6.006	0.9711	0.9749	1.0072	1.0127		0.7663	0.6740
6.999	0.9708	0.9736	0.9941	1.0005		0.7561	0.6671
7.999	0.9720	0.9751	1.0087	1.0180		0.7662	0.6740
9.006	0.9709	0.9731	0.9971	1.0052		0.7531	0.6656
10.004	0.9688	0.9725	0.9814	0.9874		0.7422	0.6593
				$\omega\sqrt{\tau}$ = 0.05			
1.995	0.9697	0.9654	0.9759	1.0646		1.0079	1.0078
3.004	0.9094	0.9338	0.8635	0.7929		0.9594	0.9526
3.998	0.8933	0.9232	0.8255	0.7054		0.5281	0.7245
5.001	0.8932	0.9215	0.8250	0.7048		0.5262	0.6243
6.013	0.8932	0.9227	0.8273	0.7086		0.5291	0.6157
7.003	0.8888	0.9201	0.8212	0.7007		0.5201	0.6060
8.017	0.8909	0.9210	0.8235	0.7037		0.5227	0.6086
9.006	0.8919	0.9207	0.8248	0.7048		0.5269	0.6140
9.995	0.8886	0.9181	0.8198	0.6974		0.5214	0.6171
				$\omega\sqrt{\tau}$ = 0.08			
1.992	0.9117	0.9236	0.9315	0.9552		0.9491	0.9572
3.007	0.7894	0.8702	0.7287	0.6054		0.7184	0.7920
3.995	0.7909	0.8669	0.7281	0.6055		0.4341	0.5983
4.995	0.7922	0.8675	0.7286	0.6071		0.4329	0.5136
6.000	0.7914	0.8677	0.7282	0.6070		0.4318	0.5082
7.000	0.7904	0.8680	0.7288	0.6070		0.4334	0.5113
7.993	0.7912	0.8665	0.7292	0.6079		0.4341	0.5102
9.001	0.7847	0.8643	0.7248	0.6034		0.4310	0.5090
10.012	0.7872	0.8651	0.7267	0.6052		0.4320	0.5098

Table A64. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 5

$\left[\text{Top surface only; dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.997	0.9897	0.9862		0.9938	1.0121	1.0668	1.1422	1.2174
3.003	0.9869	0.9955		0.9921	1.3608	1.2061	1.3207	2.1420
4.011	0.9894	1.0015		1.0673	1.7196	1.4294	1.1713	1.6543
4.998	0.9893	1.0042		1.3531	2.0686	1.6588	1.3724	1.1828
5.995	0.9906	1.0046		1.5750	2.2593	1.8004	1.4899	1.2837
6.997	0.9908	1.0009		1.6033	2.2716	1.8062	1.5044	1.3066
8.016	0.9924	0.9996		1.6070	2.2945	1.8283	1.5066	1.2937
8.997	0.9931	1.0010		1.6318	2.2983	1.8314	1.5171	1.3129
10.001	0.9937	1.0003		1.6348	2.3136	1.8446	1.5208	1.3086
				$\omega\sqrt{\tau}$ = 0.04				
1.996	0.9966	0.9793		1.0022	1.0021	1.0194	1.0579	1.1106
3.002	0.9994	0.9727		0.9895	0.9860	0.9968	1.0494	1.1189
4.003	1.0009	0.9197		0.9441	0.8972	0.8301	0.7243	1.0847
5.002	1.0000	0.9197		0.9393	0.8914	0.8222	0.7191	0.6354
5.979	0.9997	0.9233		0.9422	0.8975	0.8319	0.7256	0.6333
6.993	0.9978	0.9236		0.9423	0.8990	0.8339	0.7283	0.6384
8.030	0.9985	0.9199		0.9401	0.8962	0.8299	0.7224	0.6290
8.993	0.9985	0.9236		0.9428	0.9017	0.8386	0.7293	0.6337
10.000	0.9984	0.9237		0.9430	0.9019	0.8378	0.7312	0.6387
				$\omega\sqrt{\tau}$ = 0.10				
2.005	0.9942	0.9240		0.9750	0.9783	0.9784	0.9848	1.0187
2.999	0.9915	0.8152		0.9221	0.9442	0.9539	0.9565	0.9851
3.994	0.9921	0.7364		0.8217	0.7384	0.6458	0.7494	0.8553
5.012	0.9911	0.7399		0.8221	0.7386	0.6431	0.5603	0.5982
5.994	0.9909	0.7408		0.8228	0.7395	0.6428	0.5598	0.5002
7.017	0.9904	0.7409		0.8244	0.7413	0.6438	0.5591	0.4980
8.018	0.9905	0.7402		0.8241	0.7404	0.6437	0.5610	0.5000
9.012	0.9903	0.7380		0.8239	0.7402	0.6424	0.5580	0.4970
9.999	0.9903	0.7370		0.8238	0.7404	0.6429	0.5581	0.4959
				$\omega\sqrt{\tau}$ = 0.16				
2.007	0.9915	0.8104		0.9369	0.9485	0.9556	0.9600	0.9694
3.001	0.9853	0.5509		0.7558	0.7934	0.8577	0.8756	0.8880
3.996	0.9850	0.5329		0.7095	0.6223	0.5338	0.4661	0.6634
5.007	0.9854	0.5500		0.7123	0.6242	0.5346	0.4672	0.4276
6.006	0.9846	0.5652		0.7132	0.6235	0.5326	0.4641	0.4201
7.011	0.9846	0.5659		0.7127	0.6234	0.5332	0.4657	0.4200
7.991	0.9845	0.5594		0.7115	0.6223	0.5321	0.4637	0.4185
9.011	0.9842	0.5512		0.7114	0.6220	0.5309	0.4618	0.4178
9.991	0.9843	0.5440		0.7104	0.6211	0.5302	0.4612	0.4165

Table A65. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 6

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9956	0.9956	0.9956	0.9973	1.1642	1.3223	1.2542	1.1100
2.995	0.9961	1.0029	0.9984	1.0037	1.6023	1.2541	0.9992	0.8427
4.004	0.9985	1.0073	0.9610	4.1422	2.8104	2.0954	1.5878	1.1868
5.012	0.9948	1.0006	0.9413	4.4137	2.9137	2.1847	1.6579	1.2396
6.005	0.9971	0.9970	0.9403	4.4127	2.9076	2.1816	1.6562	1.2385
6.998	0.9974	0.9927	0.9365	4.3992	2.8951	2.1730	1.6523	1.2350
7.993	0.9961	0.9947	0.9433	4.3687	2.8891	2.1671	1.6490	1.2266
9.008	0.9967	0.9912	0.9381	4.3752	2.8881	2.1680	1.6511	1.2281
10.004	0.9969	0.9907	0.9357	4.3772	2.8932	2.1718	1.6541	1.2315
				$\omega\sqrt{\tau} = 0.04$				
2.005	0.9991	0.9952	0.9925	0.9964	1.1071	1.2634	1.2073	1.0525
2.997	1.0023	0.9926	0.9866	0.9959	1.2374	1.0600	0.9421	1.5311
4.001	1.0016	0.9956	0.9946	1.1347	1.7735	1.3058	0.9725	0.7211
4.999	0.9983	0.9935	0.9920	1.1672	1.8021	1.3223	0.9837	0.7294
5.999	0.9979	0.9928	0.9926	1.1942	1.8246	1.3375	0.9945	0.7354
7.005	0.9976	0.9934	0.9925	1.1928	1.8176	1.3338	0.9928	0.7355
7.995	0.9984	0.9937	0.9933	1.1894	1.8056	1.3266	0.9897	0.7348
8.998	0.9989	0.9934	0.9933	1.2024	1.8092	1.3289	0.9933	0.7379
10.007	0.9981	0.9927	0.9921	1.2016	1.8048	1.3280	0.9914	0.7355
				$\omega\sqrt{\tau} = 0.10$				
1.990	0.9981	0.9822	0.9715	0.9868	1.0157	1.1169	1.1061	1.0006
2.993	0.9970	0.9667	0.9505	0.9676	0.9994	0.9001	0.9805	1.2380
4.002	0.9938	0.9679	0.9604	0.9817	1.1495	0.9429	0.7244	0.5466
4.996	0.9938	0.9679	0.9630	0.9821	1.1527	0.9451	0.7260	0.5471
6.004	0.9929	0.9661	0.9644	0.9811	1.1422	0.9372	0.7212	0.5432
7.007	0.9936	0.9667	0.9665	0.9824	1.1559	0.9447	0.7268	0.5480
7.992	0.9935	0.9672	0.9665	0.9824	1.1555	0.9446	0.7276	0.5485
9.003	0.9939	0.9666	0.9666	0.9820	1.1533	0.9436	0.7273	0.5483
10.004	0.9934	0.9664	0.9661	0.9820	1.1547	0.9449	0.7276	0.5483
				$\omega\sqrt{\tau} = 0.16$				
2.004	0.9946	0.9590	0.9381	0.9618	0.9649	0.9898	0.9903	0.9305
2.990	0.9916	0.9275	0.9054	0.9139	0.8479	0.7179	0.5708	0.7447
4.001	0.9892	0.9263	0.9093	0.9146	0.8502	0.7191	0.5722	0.4418
4.999	0.9898	0.9266	0.9095	0.9166	0.8537	0.7214	0.5733	0.4427
6.003	0.9892	0.9257	0.9067	0.9149	0.8512	0.7198	0.5725	0.4410
7.008	0.9893	0.9256	0.9069	0.9156	0.8525	0.7205	0.5738	0.4435
7.997	0.9891	0.9250	0.9061	0.9155	0.8522	0.7209	0.5744	0.4435
9.004	0.9895	0.9253	0.9068	0.9165	0.8538	0.7220	0.5753	0.4442
10.008	0.9892	0.9253	0.9062	0.9160	0.8530	0.7219	0.5752	0.4437

Table A65. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9852	0.9854	0.9877	0.9892	1.0094	1.0617	1.0745
2.995	0.9127	0.9879	1.0270	1.0527	1.1021	1.1777	1.2069
4.004	1.0054	0.9904	1.0386	1.2018	1.2775	1.2633	1.9546
5.012	1.0049	0.9909	1.0641	1.2589	1.3460	1.3410	1.8680
6.005	1.0023	0.9893	1.0522	1.2386	1.3301	1.3458	1.8278
6.998	0.9976	0.9860	1.0359	1.2036	1.3036	1.3562	1.8136
7.993	0.9968	0.9853	1.0210	1.1733	1.2780	1.3708	1.7845
9.008	0.9972	0.9846	1.0168	1.1653	1.2777	1.3762	1.7880
10.004	0.9971	0.9864	1.0113	1.1563	1.2748	1.3818	1.8009
				$\omega\sqrt{\tau}$ = 0.04			
2.005	0.9875	0.9854	0.9854	0.9821	0.9851	1.0014	1.0273
2.997	0.9802	0.9814	0.9806	0.9727	0.9696	0.9870	1.0258
4.001	0.8848	0.8871	0.9264	0.9267	0.9467	1.0106	1.1113
4.999	0.8493	0.8397	0.8649	0.8101	0.7300	0.7991	0.9074
5.999	0.8558	0.8464	0.8671	0.8131	0.7125	0.6122	0.7504
7.005	0.8542	0.8449	0.8667	0.8115	0.7118	0.6121	0.5903
7.995	0.8524	0.8422	0.8663	0.8072	0.7081	0.6104	0.5385
8.998	0.8558	0.8465	0.8682	0.8110	0.7123	0.6142	0.5343
10.007	0.8547	0.8454	0.8672	0.8108	0.7121	0.6139	0.5332
				$\omega\sqrt{\tau}$ = 0.10			
1.990	0.9334	0.9310	0.9354	0.9347	0.9413	0.9521	0.9845
2.993	0.8773	0.8711	0.8744	0.8748	0.8796	0.8879	0.9088
4.002	0.7314	0.6263	0.7382	0.6818	0.6507	0.7699	0.8142
4.996	0.7306	0.6344	0.7308	0.6734	0.5741	0.4947	0.6071
6.004	0.7280	0.6190	0.7307	0.6752	0.5759	0.4959	0.4446
7.007	0.7284	0.6135	0.7371	0.6818	0.5823	0.4999	0.4432
7.992	0.7286	0.6137	0.7407	0.6861	0.5866	0.5031	0.4448
9.003	0.7283	0.6134	0.7405	0.6859	0.5866	0.5034	0.4454
10.004	0.7277	0.6152	0.7407	0.6864	0.5870	0.5038	0.4457
				$\omega\sqrt{\tau}$ = 0.16			
2.004	0.8737	0.8642	0.8734	0.8755	0.8871	0.8993	0.9191
2.990	0.7138	0.4299	0.7203	0.7735	0.8167	0.8374	0.8457
4.001	0.7131	0.3777	0.6237	0.5902	0.5181	0.5675	0.6148
4.999	0.7123	0.3647	0.6252	0.5909	0.5183	0.5258	0.5359
6.003	0.7112	0.3475	0.6283	0.5924	0.5198	0.5249	0.5271
7.008	0.7117	0.3413	0.6273	0.5972	0.5240	0.5308	0.5182
7.997	0.7122	0.3337	0.6306	0.6008	0.5274	0.5300	0.5158
9.004	0.7123	0.3296	0.6327	0.6021	0.5284	0.5294	0.5149
10.008	0.7125	0.3283	0.6347	0.6019	0.5282	0.5283	0.5154

Table A65. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9946	0.9958	0.9985	1.0873		1.0806	1.1018
2.995	0.9886	0.9902	0.9918	1.0959		1.2781	1.2771
4.004	0.9867	0.9972	1.6475	2.0699		1.3084	1.6904
5.012	0.9752	0.9930	1.8310	2.1770		1.3512	1.1114
6.005	0.9749	0.9956	1.8558	2.1589		1.3399	1.1078
6.998	0.9759	0.9974	1.8227	2.1331		1.3352	1.1104
7.993	0.9763	0.9898	1.7737	2.1328		1.3290	1.1016
9.008	0.9791	0.9942	1.7583	2.1343		1.3298	1.1049
10.004	0.9782	0.9931	1.7586	2.1447		1.3366	1.1110
				$\omega\sqrt{\tau} = 0.04$			
2.005	0.9900	0.9945	0.9811	1.0772		1.0489	1.0270
2.997	0.9740	0.9829	0.9760	0.9937		1.1673	1.0793
4.001	0.9562	0.9740	0.9272	0.9080		0.8301	1.0350
4.999	0.9533	0.9698	0.9233	0.9239		0.7894	0.7163
5.999	0.9554	0.9709	0.9266	0.9464		0.7945	0.7122
7.005	0.9552	0.9708	0.9220	0.9390		0.7866	0.7042
7.995	0.9555	0.9691	0.9226	0.9131		0.7809	0.7063
8.998	0.9567	0.9698	0.9229	0.9105		0.7815	0.7050
10.007	0.9564	0.9684	0.9222	0.9007		0.7839	0.7013
				$\omega\sqrt{\tau} = 0.10$			
1.990	0.9542	0.9663	0.9642	0.9671		1.0173	0.9833
2.993	0.9096	0.9353	0.8997	0.9040		0.9672	0.9496
4.002	0.8722	0.9146	0.8064	0.6946		0.5378	0.7840
4.996	0.8729	0.9149	0.8071	0.6944		0.5290	0.5946
6.004	0.8695	0.9111	0.8050	0.6907		0.5243	0.5744
7.007	0.8712	0.9127	0.8072	0.6914		0.5267	0.5792
7.992	0.8708	0.9120	0.8053	0.6881		0.5228	0.5792
9.003	0.8704	0.9110	0.8046	0.6869		0.5211	0.5780
10.004	0.8705	0.9107	0.8048	0.6870		0.5212	0.5799
				$\omega\sqrt{\tau} = 0.16$			
2.004	0.9112	0.9322	0.9232	0.9224		0.9381	0.9303
2.990	0.7815	0.8641	0.7196	0.6497		0.8266	0.8455
4.001	0.7783	0.8633	0.7124	0.5955		0.4425	0.6297
4.999	0.7790	0.8615	0.7134	0.5952		0.4427	0.4943
6.003	0.7771	0.8601	0.7137	0.5963		0.4420	0.4712
7.008	0.7767	0.8593	0.7146	0.5952		0.4418	0.4676
7.997	0.7752	0.8586	0.7136	0.5940		0.4402	0.4665
9.004	0.7756	0.8580	0.7142	0.5935		0.4402	0.4676
10.008	0.7750	0.8577	0.7138	0.5937		0.4396	0.4664

Table A66. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 7

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 1.95\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.001	0.9966	1.0019	0.9982	1.0000	1.0067	1.2325	1.3242	1.2137
2.990	0.9976	1.0081	1.0013	0.9958	1.5346	1.4817	1.2039	1.5297
4.005	1.0008	1.0022	0.9984	1.1923	3.1397	2.1729	1.6646	1.2630
4.993	0.9986	1.0010	0.9891	1.4507	3.2377	2.3390	1.8043	1.3714
6.004	0.9975	1.0027	0.9867	1.4355	3.2420	2.3325	1.8034	1.3702
7.018	0.9959	0.9981	0.9851	1.4159	3.2264	2.3276	1.7978	1.3622
7.991	0.9959	0.9980	0.9847	1.3884	3.2194	2.3156	1.7891	1.3526
9.005	0.9973	0.9962	0.9842	1.3910	3.2304	2.3118	1.7877	1.3516
9.996	0.9964	0.9967	0.9825	1.3932	3.2260	2.3123	1.7857	1.3490
				$\omega\sqrt{\tau}$ = 0.04				
2.002	0.9973	0.9942	0.9925	0.9942	0.9916	1.1581	1.2327	1.1239
2.998	1.0015	0.9882	0.9780	0.9864	0.9920	1.0602	1.1479	1.3448
3.992	1.0068	0.9955	0.9917	1.0002	1.3590	1.3217	1.0322	0.7802
6.004	0.9985	0.9892	0.9864	0.9932	1.3866	1.3267	1.0367	0.7811
6.993	0.9990	0.9892	0.9869	0.9937	1.3828	1.3230	1.0363	0.7810
8.002	0.9983	0.9893	0.9867	0.9927	1.3807	1.3176	1.0326	0.7805
9.009	0.9971	0.9883	0.9862	0.9918	1.3647	1.3063	1.0252	0.7753
10.003	0.9968	0.9878	0.9864	0.9913	1.3750	1.3117	1.0295	0.7787
				$\omega\sqrt{\tau}$ = 0.10				
1.996	0.9977	0.9801	0.9701	0.9834	0.9854	1.0037	1.0538	1.0100
2.995	0.9943	0.9575	0.9408	0.9504	0.9202	0.8811	0.9460	1.0724
4.000	0.9937	0.9533	0.9413	0.9495	0.9191	0.8599	0.7252	0.5722
5.004	0.9919	0.9523	0.9447	0.9496	0.9202	0.8606	0.7242	0.5713
6.006	0.9919	0.9520	0.9455	0.9497	0.9209	0.8618	0.7254	0.5715
6.993	0.9920	0.9517	0.9458	0.9497	0.9207	0.8605	0.7248	0.5713
8.002	0.9916	0.9510	0.9444	0.9484	0.9184	0.8558	0.7215	0.5698
9.016	0.9911	0.9504	0.9439	0.9477	0.9173	0.8540	0.7202	0.5688
10.004	0.9911	0.9503	0.9438	0.9480	0.9177	0.8551	0.7215	0.5694
				$\omega\sqrt{\tau}$ = 0.16				
1.988	0.9946	0.9556	0.9382	0.9556	0.9497	0.9428	0.9397	0.9298
2.999	0.9888	0.9081	0.8810	0.8824	0.8000	0.6848	0.5773	0.7907
3.998	0.9879	0.9075	0.8857	0.8836	0.8017	0.6854	0.5623	0.4500
5.009	0.9864	0.9079	0.8860	0.8840	0.8029	0.6866	0.5628	0.4486
6.000	0.9865	0.9069	0.8851	0.8841	0.8031	0.6867	0.5632	0.4486
6.998	0.9867	0.9065	0.8845	0.8841	0.8030	0.6870	0.5636	0.4493
8.005	0.9860	0.9061	0.8838	0.8837	0.8025	0.6866	0.5636	0.4493
9.006	0.9861	0.9063	0.8841	0.8842	0.8034	0.6876	0.5643	0.4497
10.006	0.9859	0.9057	0.8838	0.8840	0.8028	0.6869	0.5637	0.4495

Table A66. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.001	0.9810	1.0073	1.0008	1.0060	1.0323	1.0868	1.0894
2.990	0.9326	1.1417	1.1531	1.2165	1.2949	1.3732	1.3835
4.005	1.0095	0.9792	1.1474	1.4239	1.2874	0.9823	1.7769
4.993	0.9994	1.0088	1.2369	1.5942	1.4031	1.0797	1.3907
6.004	0.9978	1.0009	1.1868	1.5452	1.4346	1.1086	0.8738
7.018	0.9969	0.9960	1.1719	1.5363	1.4381	1.1183	0.8766
7.991	0.9921	0.9904	1.1553	1.4831	1.4469	1.1263	0.8757
9.005	0.9918	0.9867	1.1478	1.4636	1.4450	1.1262	0.8748
9.996	0.9885	0.9870	1.1519	1.4756	1.4480	1.1277	0.8721
				$\omega\sqrt{\tau} = 0.04$			
2.002	0.9926	0.9869	0.9781	0.9758	0.9882	1.0230	1.0256
2.998	0.9928	0.9864	0.9742	0.9641	0.9705	0.9996	1.0168
3.992	0.9006	0.7465	0.8749	0.8508	0.7369	0.7580	1.0530
6.004	0.8959	0.7489	0.8623	0.8385	0.7262	0.5888	0.4961
6.993	0.8963	0.7527	0.8628	0.8403	0.7298	0.5944	0.4834
8.002	0.8950	0.7466	0.8583	0.8300	0.7253	0.5955	0.4858
9.009	0.8932	0.7434	0.8544	0.8259	0.7211	0.5921	0.4840
10.003	0.8950	0.7513	0.8585	0.8324	0.7274	0.5958	0.4855
				$\omega\sqrt{\tau} = 0.10$			
1.996	0.9574	0.9253	0.9242	0.9192	0.9229	0.9365	0.9560
2.995	0.8968	0.7616	0.8818	0.8765	0.8745	0.8867	0.9153
4.000	0.8620	0.4436	0.7023	0.6797	0.5736	0.4935	0.7618
5.004	0.8603	0.4269	0.6976	0.6797	0.5766	0.4862	0.4670
6.006	0.8606	0.4161	0.6968	0.6828	0.5801	0.4894	0.4348
6.993	0.8602	0.4285	0.6938	0.6879	0.5866	0.4935	0.4368
8.002	0.8596	0.4596	0.6756	0.6861	0.5899	0.4960	0.4387
9.016	0.8591	0.4503	0.6755	0.6845	0.5893	0.4957	0.4390
10.004	0.8594	0.4358	0.6830	0.6859	0.5898	0.4963	0.4390
				$\omega\sqrt{\tau} = 0.16$			
1.988	0.9080	0.7944	0.8792	0.8759	0.8785	0.8928	0.9099
2.999	0.8574	0.4524	0.5808	0.6797	0.7446	0.8103	0.8250
3.998	0.8559	0.3741	0.5283	0.5747	0.5076	0.5177	0.5693
5.009	0.8548	0.3662	0.5283	0.5741	0.5081	0.5126	0.5422
6.000	0.8548	0.3882	0.5133	0.5721	0.5119	0.5179	0.5390
6.998	0.8541	0.4041	0.5005	0.5700	0.5167	0.5231	0.5377
8.005	0.8543	0.4058	0.5010	0.5703	0.5199	0.5243	0.5352
9.006	0.8544	0.3934	0.5115	0.5737	0.5202	0.5218	0.5350
10.006	0.8546	0.3783	0.5145	0.5711	0.5183	0.5276	0.5334

Table A66. Concluded

(c) Side surface

	x/L						
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
$\omega\sqrt{\tau} = 0.00$							
2.001	0.9963	0.9945	0.9956	1.1204		1.1171	1.1363
2.990	0.9993	0.9950	1.0047	1.2147		1.5863	1.4734
4.005	1.0040	1.0017	1.4959	1.7640		1.2855	1.5495
4.993	0.9985	1.0003	1.7676	1.9945		1.3900	1.1412
6.004	0.9973	1.0005	1.7690	1.9848		1.3843	1.1490
7.018	0.9912	0.9986	1.7660	1.9665		1.3850	1.1444
7.991	0.9917	0.9970	1.7329	1.9527		1.3744	1.1324
9.005	0.9930	1.0000	1.7109	1.9545		1.3698	1.1343
9.996	0.9936	0.9993	1.7085	1.9612		1.3655	1.1265
$\omega\sqrt{\tau} = 0.04$							
2.002	0.9900	0.9916	0.9890	1.0609		1.0594	1.0551
2.998	0.9698	0.9779	0.9694	0.9837		1.1382	1.0789
3.992	0.9654	0.9794	0.9381	0.8770		0.6656	1.0236
6.004	0.9609	0.9747	0.9357	0.8860		0.6678	0.5904
6.993	0.9615	0.9748	0.9349	0.8795		0.6629	0.5871
8.002	0.9609	0.9729	0.9335	0.8707		0.6588	0.5834
9.009	0.9603	0.9710	0.9309	0.8613		0.6531	0.5793
10.003	0.9607	0.9710	0.9322	0.8626		0.6537	0.5781
$\omega\sqrt{\tau} = 0.10$							
1.996	0.9522	0.9658	0.9646	0.9681		0.9952	0.9751
2.995	0.8987	0.9265	0.8850	0.8868		0.9499	0.9623
4.000	0.8699	0.9132	0.8118	0.6967		0.6420	0.7671
5.004	0.8683	0.9109	0.8125	0.6973		0.4934	0.5952
6.006	0.8689	0.9105	0.8137	0.6982		0.4925	0.4549
6.993	0.8681	0.9100	0.8134	0.6963		0.4889	0.4433
8.002	0.8660	0.9079	0.8113	0.6930		0.4860	0.4404
9.016	0.8651	0.9064	0.8100	0.6916		0.4848	0.4400
10.004	0.8655	0.9057	0.8103	0.6918		0.4847	0.4405
$\omega\sqrt{\tau} = 0.16$							
1.988	0.9026	0.9273	0.9171	0.9170		0.9233	0.9237
2.999	0.7615	0.8518	0.7087	0.6004		0.7738	0.8051
3.998	0.7598	0.8516	0.7081	0.5926		0.4196	0.6020
5.009	0.7591	0.8504	0.7092	0.5930		0.4199	0.4040
6.000	0.7593	0.8496	0.7101	0.5940		0.4193	0.3855
6.998	0.7584	0.8480	0.7110	0.5936		0.4189	0.3858
8.005	0.7576	0.8468	0.7109	0.5931		0.4163	0.3844
9.006	0.7574	0.8459	0.7114	0.5933		0.4163	0.3843
10.006	0.7564	0.8455	0.7110	0.5926		0.4168	0.3839

Table A67. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 8

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.42\text{; } \delta = 18°\text{; } h_u/h_l = 2.96\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9871	1.0054	1.0007	0.9971	0.9942	1.1904	1.3172	1.2321
3.009	0.9886	1.0099	1.0068	0.9977	1.4990	1.6224	1.3808	2.1521
4.012	0.9874	1.0056	1.0051	0.9576	3.0311	2.2473	1.7008	1.2960
4.999	0.9864	1.0078	0.9975	1.0109	3.5109	2.4020	1.8540	1.4222
5.993	0.9896	1.0048	0.9929	1.0032	3.5014	2.3968	1.8508	1.4178
7.026	0.9899	1.0002	0.9956	1.0002	3.4967	2.3977	1.8531	1.4190
8.012	0.9911	1.0007	0.9930	0.9898	3.4890	2.3908	1.8477	1.4105
9.005	0.9898	0.9982	0.9907	0.9891	3.4772	2.3875	1.8455	1.4068
9.998	0.9899	0.9973	0.9896	0.9905	3.4514	2.3814	1.8394	1.4015
				$\omega\sqrt{\tau} = 0.04$				
2.015	0.9893	0.9980	0.9942	0.9958	0.9952	1.0839	1.1891	1.1174
2.995	0.9924	0.9817	0.9809	0.9865	0.9842	1.0446	1.0687	1.3175
3.997	0.9938	0.9918	0.9863	0.9953	1.1008	1.2757	1.0380	0.7969
5.003	0.9921	0.9894	0.9843	0.9916	1.0865	1.2523	1.0240	0.7861
6.016	0.9927	0.9899	0.9845	0.9925	1.1300	1.2849	1.0458	0.8006
6.994	0.9927	0.9880	0.9841	0.9908	1.0993	1.2518	1.0264	0.7878
8.018	0.9929	0.9873	0.9834	0.9898	1.1051	1.2544	1.0301	0.7906
9.004	0.9941	0.9871	0.9844	0.9903	1.1165	1.2603	1.0326	0.7927
9.998	0.9949	0.9872	0.9844	0.9900	1.1112	1.2537	1.0281	0.7897
				$\omega\sqrt{\tau} = 0.10$				
2.004	0.9870	0.9799	0.9689	0.9785	0.9780	0.9793	1.0037	0.9915
2.990	0.9868	0.9535	0.9378	0.9424	0.9090	0.8728	0.8983	0.9642
3.998	0.9856	0.9500	0.9367	0.9390	0.8969	0.8193	0.7051	0.5697
4.995	0.9866	0.9476	0.9362	0.9368	0.8932	0.8126	0.6968	0.5622
6.009	0.9872	0.9479	0.9374	0.9378	0.8957	0.8171	0.7015	0.5657
7.005	0.9873	0.9490	0.9391	0.9403	0.9005	0.8247	0.7097	0.5720
8.014	0.9874	0.9458	0.9359	0.9372	0.8946	0.8148	0.6993	0.5645
9.000	0.9886	0.9464	0.9364	0.9375	0.8951	0.8162	0.7012	0.5661
9.997	0.9886	0.9461	0.9357	0.9380	0.8960	0.8169	0.7016	0.5659
				$\omega\sqrt{\tau} = 0.16$				
1.993	0.9856	0.9539	0.9376	0.9488	0.9365	0.9228	0.9119	0.9052
3.005	0.9794	0.9054	0.8751	0.8743	0.7927	0.6857	0.6017	0.7706
3.999	0.9815	0.9034	0.8758	0.8743	0.7902	0.6760	0.5562	0.4464
5.000	0.9817	0.9028	0.8761	0.8743	0.7906	0.6763	0.5562	0.4438
6.008	0.9817	0.9000	0.8726	0.8713	0.7860	0.6705	0.5508	0.4392
7.000	0.9823	0.9014	0.8744	0.8734	0.7891	0.6742	0.5547	0.4425
8.011	0.9823	0.9019	0.8755	0.8752	0.7916	0.6774	0.5581	0.4455
8.998	0.9831	0.9008	0.8739	0.8741	0.7899	0.6756	0.5561	0.4440
9.995	0.9830	0.9005	0.8739	0.8745	0.7905	0.6760	0.5568	0.4444

Table A67. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9915	1.0290	1.0116	1.0164	1.0419	1.0939	1.0950
3.009	0.9576	1.2867	1.2584	1.3309	1.4152	1.4986	1.5128
4.012	1.0136	0.9951	1.2606	1.5569	1.2801	0.9524	1.7892
4.999	1.0063	1.0342	1.3456	1.7150	1.4338	1.0689	1.4836
5.993	1.0012	1.0306	1.3086	1.6990	1.4616	1.0847	0.8276
7.026	1.0009	1.0285	1.2752	1.6851	1.4909	1.1028	0.8317
8.012	0.9983	1.0258	1.2650	1.6777	1.5086	1.1100	0.8307
9.005	0.9972	1.0227	1.2587	1.6674	1.5067	1.1055	0.8264
9.998	0.9977	1.0205	1.2488	1.6548	1.5038	1.1005	0.8211
				$\omega\sqrt{\tau} = 0.04$			
2.015	1.0025	0.9868	0.9758	0.9738	0.9831	1.0145	1.0131
2.995	1.0027	0.9899	0.9701	0.9722	0.9931	1.0334	1.0471
3.997	0.9549	0.6958	0.8642	0.9000	0.7396	0.5773	1.0222
5.003	0.9515	0.6865	0.8554	0.8920	0.7285	0.5689	0.7159
6.016	0.9513	0.6871	0.8562	0.8933	0.7567	0.5885	0.4687
6.994	0.9473	0.6639	0.8453	0.8870	0.7492	0.5853	0.4662
8.018	0.9464	0.6581	0.8453	0.8897	0.7626	0.5940	0.4695
9.004	0.9462	0.6629	0.8464	0.8903	0.7664	0.5970	0.4713
9.998	0.9449	0.6610	0.8451	0.8876	0.7649	0.5961	0.4707
				$\omega\sqrt{\tau} = 0.10$			
2.004	0.9823	0.9116	0.8994	0.8972	0.9076	0.9305	0.9406
2.990	0.9595	0.7967	0.8141	0.8066	0.8138	0.8362	0.8750
3.998	0.9390	0.4270	0.6661	0.6836	0.5755	0.4774	0.7022
4.995	0.9380	0.3889	0.6648	0.6760	0.5701	0.4766	0.4287
6.009	0.9370	0.3811	0.6605	0.6805	0.5771	0.4811	0.4287
7.005	0.9360	0.4508	0.6428	0.6929	0.5941	0.4895	0.4295
8.014	0.9353	0.4746	0.6234	0.6872	0.5946	0.4903	0.4314
9.000	0.9351	0.4658	0.6301	0.6916	0.5969	0.4917	0.4323
9.997	0.9343	0.4538	0.6304	0.6910	0.5975	0.4921	0.4319
				$\omega\sqrt{\tau} = 0.16$			
1.993	0.9638	0.8304	0.8098	0.8116	0.8338	0.8630	0.8838
3.005	0.9362	0.4609	0.5789	0.6367	0.7004	0.7792	0.7946
3.999	0.9353	0.2888	0.5261	0.5638	0.4946	0.5039	0.5590
5.000	0.9343	0.2785	0.5261	0.5654	0.4959	0.5032	0.5526
6.008	0.9334	0.3017	0.5037	0.5636	0.4999	0.5277	0.5499
7.000	0.9328	0.3348	0.4906	0.5675	0.5084	0.5184	0.5512
8.011	0.9324	0.3571	0.4823	0.5658	0.5160	0.5203	0.5482
8.998	0.9315	0.3514	0.4816	0.5645	0.5160	0.5285	0.5472
9.995	0.9312	0.2488	0.4973	0.5698	0.5162	0.5227	0.5508

Table A67. Concluded

(c) Side surface

				ω√τ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9929	0.9846	0.9917	1.1241		1.1312	1.1393
3.009	1.0052	0.9894	1.0195	1.3408		1.9146	1.5892
4.012	1.0070	0.9921	1.4307	1.7275		1.2797	1.4781
4.999	1.0057	0.9953	1.7023	1.9375		1.4052	1.1548
5.993	1.0032	0.9937	1.7161	1.9359		1.4019	1.1569
7.026	0.9984	0.9964	1.7316	1.9270		1.4058	1.1578
8.012	0.9968	0.9943	1.7192	1.9110		1.4035	1.1462
9.005	0.9944	0.9936	1.6946	1.9047		1.3933	1.1402
9.998	0.9957	0.9946	1.6704	1.9165		1.3882	1.1385
				ω√τ = 0.04			
2.015	0.9906	0.9865	0.9908	1.0456		1.0535	1.0388
2.995	0.9687	0.9707	0.9625	0.9720		1.1271	1.1722
3.997	0.9654	0.9698	0.9393	0.8739		0.6430	1.0122
5.003	0.9612	0.9673	0.9330	0.8633		0.6364	0.6606
6.016	0.9639	0.9696	0.9398	0.8831		0.6498	0.5596
6.994	0.9607	0.9666	0.9340	0.8675		0.6349	0.5481
8.018	0.9605	0.9667	0.9324	0.8569		0.6319	0.5452
9.004	0.9614	0.9670	0.9338	0.8583		0.6333	0.5463
9.998	0.9599	0.9680	0.9328	0.8558		0.6299	0.5430
				ω√τ = 0.10			
2.004	0.9465	0.9552	0.9558	0.9529		0.9711	0.9678
2.990	0.8895	0.9127	0.8717	0.8586		0.9199	0.9350
3.998	0.8624	0.8995	0.8082	0.6945		0.6340	0.7602
4.995	0.8569	0.8972	0.8042	0.6898		0.4843	0.5784
6.009	0.8593	0.8980	0.8075	0.6933		0.4856	0.4285
7.005	0.8628	0.8998	0.8122	0.6979		0.4875	0.4207
8.014	0.8564	0.8948	0.8063	0.6901		0.4815	0.4150
9.000	0.8574	0.8957	0.8069	0.6904		0.4805	0.4145
9.997	0.8571	0.8955	0.8075	0.6906		0.4808	0.4152
				ω√τ = 0.16			
1.993	0.8945	0.9142	0.9032	0.8900		0.8898	0.9006
3.005	0.7529	0.8352	0.7130	0.6180		0.7377	0.7751
3.999	0.7448	0.8338	0.6980	0.5852		0.4115	0.5833
5.000	0.7437	0.8326	0.6986	0.5856		0.4114	0.3743
6.008	0.7357	0.8288	0.6940	0.5812		0.4076	0.3604
7.000	0.7395	0.8296	0.6980	0.5845		0.4092	0.3609
8.011	0.7412	0.8295	0.7012	0.5874		0.4104	0.3599
8.998	0.7380	0.8279	0.6994	0.5848		0.4088	0.3581
9.995	0.7380	0.8284	0.7000	0.5847		0.4085	0.3578

Table A68. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 9

$\left[\text{Top surface only; dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.002	0.9833	0.9943	0.9995	0.9950	0.9893	1.0063	1.0527	1.1109
3.019	0.9848	1.0000	0.9908	0.9822	0.9702	1.0530	1.1526	1.2443
3.997	0.9869	1.0034	1.0048	1.2036	2.5661	2.0380	1.6935	2.6678
4.991	0.9891	1.0030	1.0030	1.1970	2.5941	2.0462	1.7011	1.4181
5.987	0.9892	1.0022	0.9988	1.2103	2.6049	2.0531	1.7144	1.4410
7.003	0.9930	1.0018	0.9974	1.2211	2.6254	2.0615	1.7276	1.4562
8.010	0.9941	0.9991	0.9953	1.2203	2.6479	2.0820	1.7312	1.4454
8.991	0.9954	0.9997	0.9957	1.2319	2.6526	2.0819	1.7424	1.4651
9.981	1.0046	1.0004	0.9946	1.2226	2.6732	2.0970	1.7491	1.4624
				$\omega\sqrt{\tau} = 0.06$				
1.995	1.0023	0.9823	0.9921	0.9939	0.9910	0.9867	1.0025	1.0422
2.979	1.0034	0.9581	0.9802	0.9863	0.9873	0.9843	0.9823	1.0207
4.003	1.0032	0.9067	0.9593	0.9687	0.9752	0.9774	1.0021	1.0627
4.985	1.0015	0.8799	0.9369	0.9280	0.8797	0.8034	0.7210	0.9340
5.996	1.0006	0.8842	0.9349	0.9258	0.8773	0.8004	0.7165	0.6377
6.988	0.9992	0.8819	0.9353	0.9269	0.8791	0.8028	0.7208	0.6267
8.007	0.9990	0.8861	0.9365	0.9284	0.8818	0.8065	0.7229	0.6256
8.978	0.9980	0.8854	0.9353	0.9268	0.8802	0.8045	0.7222	0.6269
10.007	0.9971	0.8823	0.9353	0.9268	0.8807	0.8047	0.7212	0.6237
				$\omega\sqrt{\tau} = 0.15$				
1.994	0.9957	0.9056	0.9500	0.9657	0.9680	0.9701	0.9759	0.9825
2.991	0.9909	0.7889	0.8847	0.9197	0.9355	0.9444	0.9488	0.9524
4.005	0.9860	0.6258	0.7925	0.8006	0.7565	0.7875	0.8558	0.8768
4.999	0.9828	0.6092	0.7874	0.7906	0.7136	0.6229	0.5473	0.6760
6.002	0.9831	0.6091	0.7856	0.7898	0.7125	0.6207	0.5453	0.4857
6.988	0.9821	0.6115	0.7863	0.7902	0.7127	0.6212	0.5464	0.4768
8.010	0.9816	0.6189	0.7887	0.7923	0.7151	0.6230	0.5479	0.4774
8.992	0.9817	0.6208	0.7878	0.7925	0.7150	0.6230	0.5479	0.4768
9.988	0.9808	0.6196	0.7864	0.7918	0.7144	0.6217	0.5459	0.4746
				$\omega\sqrt{\tau} = 0.21$				
3.014	0.9814	0.5462	0.7547	0.8175	0.8472	0.8755	0.8884	0.8933
3.997	0.9790	0.4638	0.6028	0.6724	0.6049	0.5218	0.4752	0.6815
5.005	0.9785	0.4599	0.5986	0.6732	0.6035	0.5203	0.4578	0.4355
5.996	0.9780	0.4529	0.5893	0.6694	0.6001	0.5155	0.4528	0.3996
7.004	0.9770	0.4547	0.6014	0.6738	0.6048	0.5208	0.4585	0.4037
8.006	0.9764	0.4482	0.5920	0.6700	0.6013	0.5170	0.4546	0.4004
8.983	0.9762	0.4471	0.5875	0.6719	0.6013	0.5162	0.4537	0.3994
9.999	0.9759	0.4332	0.5933	0.6710	0.6002	0.5161	0.4546	0.4000

Table A69. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 10

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

NPR	x/L = -0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
$\omega\sqrt{\tau} = 0.00$								
2.008	0.9854	0.9966	0.9897	0.9943	0.9976	1.1893	1.2375	1.1220
2.989	0.9856	0.9928	0.9902	1.0000	1.2373	1.2141	0.9950	0.8929
3.996	0.9853	0.9945	0.9867	2.0776	3.0243	2.2011	1.6305	1.2304
5.005	0.9878	0.9880	0.9677	2.9541	3.2209	2.4080	1.7949	1.3584
5.993	0.9915	0.9908	0.9437	3.6218	3.3317	2.5188	1.8811	1.4254
6.994	0.9932	0.9849	0.9459	3.5457	3.3223	2.5091	1.8798	1.4237
7.983	0.9928	0.9883	0.9481	3.5756	3.3155	2.5079	1.8767	1.4184
9.024	0.9938	0.9878	0.9445	3.5985	3.3269	2.5151	1.8835	1.4241
9.986	0.9937	0.9861	0.9409	3.6129	3.3272	2.5158	1.8848	1.4264
$\omega\sqrt{\tau} = 0.06$								
1.980	0.9941	0.9908	0.9921	0.9962	0.9967	1.1541	1.1890	1.0679
2.991	0.9959	0.9856	0.9783	0.9868	0.9944	1.0390	1.2248	1.2836
4.028	0.9981	0.9860	0.9882	0.9976	1.5651	1.3144	0.9774	0.7366
4.985	0.9976	0.9876	0.9893	0.9808	1.7699	1.4113	1.0364	0.7728
5.969	0.9968	0.9870	0.9882	0.9744	1.7949	1.4252	1.0450	0.7785
7.005	0.9974	0.9868	0.9870	0.9739	1.7852	1.4235	1.0444	0.7778
7.989	0.9972	0.9870	0.9871	0.9741	1.7612	1.4107	1.0371	0.7741
9.023	1.0000	0.9872	0.9880	0.9710	1.7629	1.4088	1.0379	0.7761
10.005	0.9997	0.9875	0.9880	0.9691	1.7758	1.4153	1.0409	0.7789
$\omega\sqrt{\tau} = 0.15$								
1.966	0.9908	0.9764	0.9649	0.9816	0.9855	1.0285	1.0738	1.0036
2.986	0.9872	0.9532	0.9210	0.9440	0.9196	0.9089	1.0603	1.0486
3.998	0.9859	0.9464	0.9242	0.9519	0.9551	0.9167	0.7227	0.5590
4.982	0.9866	0.9472	0.9286	0.9503	0.9590	0.9179	0.7228	0.5597
6.011	0.9867	0.9469	0.9320	0.9491	0.9579	0.9142	0.7206	0.5583
7.004	0.9863	0.9471	0.9335	0.9490	0.9601	0.9180	0.7243	0.5603
8.014	0.9880	0.9452	0.9335	0.9489	0.9572	0.9118	0.7206	0.5591
9.012	0.9880	0.9475	0.9345	0.9497	0.9601	0.9166	0.7241	0.5610
10.003	0.9877	0.9488	0.9349	0.9510	0.9641	0.9209	0.7263	0.5628
$\omega\sqrt{\tau} = 0.21$								
2.000	0.9892	0.9605	0.9328	0.9616	0.9630	0.9680	0.9856	0.9471
3.007	0.9810	0.9202	0.8681	0.8984	0.8446	0.7707	0.8425	0.9332
3.998	0.9804	0.9148	0.8754	0.8989	0.8467	0.7402	0.5984	0.4735
4.983	0.9801	0.9153	0.8805	0.8976	0.8467	0.7401	0.5975	0.4741
6.002	0.9809	0.9162	0.8821	0.8977	0.8474	0.7410	0.5983	0.4744
7.003	0.9812	0.9156	0.8812	0.8979	0.8473	0.7410	0.5989	0.4752
8.003	0.9821	0.9156	0.8807	0.8985	0.8480	0.7415	0.5990	0.4763
9.004	0.9820	0.9153	0.8793	0.8979	0.8460	0.7390	0.5972	0.4748
10.020	0.9822	0.9149	0.8782	0.8983	0.8464	0.7394	0.5974	0.4752

Table A69. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.9626	0.9750	0.9798	0.9836	1.0028	1.0373	1.0256
2.989	0.8372	0.9718	0.9957	1.0280	1.0810	1.1502	1.1428
3.996	1.0034	0.9755	0.9854	1.0705	1.3345	1.6654	2.0270
5.005	1.0078	0.9819	1.0099	1.1306	1.2896	1.1914	1.6227
5.993	1.0018	0.9848	1.0279	1.1902	1.3885	1.2861	1.3599
6.994	0.9964	0.9771	1.0196	1.1387	1.3451	1.2470	1.3676
7.983	0.9897	0.9858	1.0218	1.1492	1.3406	1.2570	1.3598
9.024	0.9889	0.9863	1.0201	1.1440	1.3527	1.2597	1.3734
9.986	0.9898	0.9844	1.0169	1.1404	1.3583	1.2608	1.3801
				$\omega\sqrt{\tau} = 0.06$			
1.980	0.9913	0.9854	0.9836	0.9831	0.9847	0.9983	0.9993
2.991	0.9826	0.9803	0.9769	0.9721	0.9709	0.9837	0.9871
4.028	0.8869	0.9216	0.9492	0.9573	0.9699	1.0285	1.1097
4.985	0.7742	0.8707	0.8837	0.8705	0.8916	0.9202	0.9608
5.969	0.7470	0.8580	0.8564	0.7997	0.7069	0.6917	0.8271
7.005	0.7454	0.8590	0.8584	0.7982	0.7029	0.6001	0.6593
7.989	0.7371	0.8586	0.8567	0.7952	0.6992	0.5969	0.5298
9.023	0.7342	0.8611	0.8576	0.7946	0.6975	0.5952	0.4998
10.005	0.7365	0.8643	0.8603	0.7987	0.7024	0.5998	0.5021
				$\omega\sqrt{\tau} = 0.15$			
1.966	0.9318	0.9391	0.9441	0.9443	0.9432	0.9468	0.9598
2.986	0.8416	0.8754	0.8828	0.8848	0.8880	0.8929	0.9007
3.998	0.4954	0.6758	0.7461	0.7332	0.7639	0.8175	0.8409
4.982	0.4336	0.6664	0.7203	0.6585	0.5655	0.4843	0.6419
6.011	0.3959	0.6650	0.7213	0.6599	0.5674	0.4851	0.4354
7.004	0.3819	0.6707	0.7249	0.6639	0.5716	0.4892	0.4241
8.014	0.3669	0.6697	0.7240	0.6632	0.5712	0.4891	0.4243
9.012	0.3639	0.6741	0.7261	0.6645	0.5725	0.4901	0.4249
10.003	0.3609	0.6772	0.7274	0.6655	0.5732	0.4908	0.4252
				$\omega\sqrt{\tau} = 0.21$			
2.000	0.8626	0.8935	0.9035	0.9045	0.9074	0.9118	0.9204
3.007	0.6734	0.7610	0.7885	0.8008	0.8126	0.8245	0.8368
3.998	0.3109	0.5684	0.6491	0.5994	0.5239	0.6047	0.6931
4.983	0.3106	0.5646	0.6497	0.5988	0.5186	0.4552	0.4660
6.002	0.3096	0.5613	0.6556	0.6038	0.5218	0.4580	0.4187
7.003	0.3081	0.5515	0.6613	0.6082	0.5258	0.4611	0.4211
8.003	0.3073	0.5454	0.6616	0.6083	0.5262	0.4613	0.4218
9.004	0.3076	0.5452	0.6620	0.6084	0.5264	0.4621	0.4226
10.020	0.3061	0.5442	0.6617	0.6085	0.5263	0.4622	0.4228

Table A69. Concluded

(c) Side surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.9890	0.9893	0.9893	1.0365		1.0459	1.0668
2.989	0.9701	0.9780	0.9765	0.9890		1.2055	1.2532
3.996	0.9924	0.9916	1.1186	1.8083		1.3313	1.9515
5.005	0.9824	0.9882	1.4116	2.1527		1.4379	1.1661
5.993	0.9644	0.9817	1.5615	2.3301		1.4957	1.2119
6.994	0.9752	0.9828	1.3897	2.3498		1.4984	1.2224
7.983	0.9759	0.9757	1.3238	2.3800		1.4933	1.2114
9.024	0.9805	0.9805	1.3242	2.3924		1.4964	1.2150
9.986	0.9787	0.9793	1.3275	2.3977		1.4972	1.2182
				$\omega\sqrt{\tau}$ = 0.06			
1.980	0.9937	0.9856	0.9929	1.0172		1.0222	1.0126
2.991	0.9738	0.9734	0.9807	0.9822		1.0842	1.0287
4.028	0.9404	0.9488	0.9283	0.8987		1.0146	1.0901
4.985	0.9334	0.9452	0.9104	0.8462		0.7368	0.7501
5.969	0.9333	0.9444	0.9074	0.8443		0.7253	0.6629
7.005	0.9340	0.9420	0.9050	0.8358		0.7192	0.6588
7.989	0.9337	0.9419	0.9020	0.8245		0.7092	0.6533
9.023	0.9359	0.9451	0.9040	0.8267		0.7080	0.6540
10.005	0.9372	0.9449	0.9055	0.8267		0.7108	0.6557
				$\omega\sqrt{\tau}$ = 0.15			
1.966	0.9449	0.9499	0.9635	0.9606		0.9949	0.9746
2.986	0.8884	0.9021	0.9069	0.9119		0.9328	0.9223
3.998	0.8224	0.8506	0.7855	0.6885		0.7904	0.8295
4.982	0.8231	0.8504	0.7831	0.6816		0.5146	0.6494
6.011	0.8219	0.8482	0.7819	0.6795		0.5122	0.5210
7.004	0.8226	0.8480	0.7811	0.6773		0.5101	0.4905
8.014	0.8201	0.8473	0.7788	0.6739		0.5078	0.4849
9.012	0.8216	0.8486	0.7798	0.6752		0.5090	0.4865
10.003	0.8227	0.8479	0.7811	0.6765		0.5095	0.4872
				$\omega\sqrt{\tau}$ = 0.21			
2.000	0.9039	0.9184	0.9336	0.9309		0.9393	0.9354
3.007	0.7971	0.8310	0.8134	0.8101		0.8571	0.8463
3.998	0.7460	0.7943	0.7173	0.6125		0.5674	0.6919
4.983	0.7478	0.7937	0.7174	0.6126		0.4598	0.5329
6.002	0.7498	0.7930	0.7174	0.6116		0.4585	0.4556
7.003	0.7488	0.7922	0.7163	0.6097		0.4576	0.4491
8.003	0.7480	0.7919	0.7161	0.6091		0.4575	0.4470
9.004	0.7466	0.7914	0.7146	0.6077		0.4559	0.4470
10.020	0.7469	0.7892	0.7149	0.6075		0.4556	0.4466

Table A70. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 11

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 2.50\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.002	0.9982	0.9951	0.9951	1.0011	0.9963	1.0715	1.1975	1.1771
3.001	1.0070	1.0080	1.0061	1.0221	2.2182	2.0019	1.4596	2.0678
3.995	1.0046	0.9995	1.0005	0.9808	3.1796	2.3581	1.7254	1.3163
5.006	1.0008	1.0113	0.9919	0.9809	3.8214	2.5250	1.9000	1.4652
6.013	0.9999	0.9940	0.9812	1.0299	3.9161	2.6796	2.0389	1.5741
6.997	0.9981	1.0004	0.9814	1.0055	3.9048	2.6579	2.0211	1.5591
8.006	0.9981	0.9953	0.9813	0.9897	3.8933	2.6567	2.0170	1.5549
9.003	0.9970	0.9947	0.9796	0.9829	3.8905	2.6546	2.0147	1.5529
10.024	0.9979	0.9904	0.9809	0.9822	3.9029	2.6607	2.0185	1.5559
				$\omega\sqrt{\tau}$ = 0.06				
1.994	0.9973	0.9922	0.9901	0.9954	0.9958	1.0215	1.1122	1.0809
2.990	0.9971	0.9843	0.9760	0.9847	0.9760	0.9879	1.0692	1.1497
3.999	0.9986	0.9858	0.9822	0.9990	1.0491	1.3193	1.0643	0.8227
5.008	0.9956	0.9837	0.9811	0.9912	1.0904	1.3648	1.0899	0.8394
5.998	0.9955	0.9842	0.9815	0.9875	1.1045	1.3679	1.0909	0.8411
7.013	0.9933	0.9822	0.9788	0.9836	1.0723	1.3265	1.0675	0.8262
7.993	0.9941	0.9831	0.9803	0.9839	1.0923	1.3433	1.0775	0.8339
8.994	0.9935	0.9835	0.9807	0.9828	1.0922	1.3401	1.0754	0.8324
9.984	0.9936	0.9843	0.9813	0.9829	1.1010	1.3470	1.0794	0.8352
				$\omega\sqrt{\tau}$ = 0.15				
1.988	0.9927	0.9770	0.9640	0.9775	0.9773	0.9779	0.9924	0.9897
3.023	0.9877	0.9530	0.9261	0.9430	0.9233	0.9137	0.9438	0.9769
4.006	0.9835	0.9416	0.9121	0.9280	0.8940	0.8246	0.7124	0.5879
5.003	0.9830	0.9417	0.9125	0.9251	0.8935	0.8232	0.7102	0.5812
5.999	0.9819	0.9417	0.9121	0.9222	0.8906	0.8189	0.7056	0.5773
6.986	0.9820	0.9414	0.9122	0.9226	0.8923	0.8212	0.7081	0.5794
7.994	0.9814	0.9425	0.9131	0.9238	0.8944	0.8252	0.7127	0.5834
8.995	0.9819	0.9417	0.9133	0.9244	0.8949	0.8259	0.7134	0.5840
9.994	0.9817	0.9414	0.9134	0.9245	0.8950	0.8260	0.7138	0.5842
				$\omega\sqrt{\tau}$ = 0.21				
2.003	0.9884	0.9607	0.9392	0.9590	0.9568	0.9536	0.9492	0.9449
3.014	0.9782	0.9168	0.8626	0.8866	0.8313	0.7741	0.8155	0.8862
4.006	0.9764	0.9119	0.8605	0.8775	0.8163	0.7149	0.5958	0.5474
5.004	0.9761	0.9126	0.8601	0.8756	0.8157	0.7143	0.5945	0.4832
6.000	0.9754	0.9127	0.8614	0.8765	0.8179	0.7173	0.5978	0.4857
7.000	0.9753	0.9133	0.8599	0.8759	0.8175	0.7167	0.5975	0.4860
7.995	0.9750	0.9116	0.8579	0.8750	0.8156	0.7145	0.5954	0.4843
9.012	0.9749	0.9118	0.8586	0.8762	0.8169	0.7162	0.5971	0.4855
10.023	0.9746	0.9119	0.8570	0.8758	0.8159	0.7147	0.5955	0.4842

Table A70. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.002	0.9220	0.9924	0.9904	0.9963	1.0219	1.0579	1.0462
3.001	0.9938	0.9724	1.0333	1.3214	1.6772	1.9695	2.2150
3.995	0.9967	0.9899	1.0133	1.2654	1.3225	1.2110	1.9967
5.006	0.9961	0.9802	1.0889	1.4269	1.4608	1.1371	1.6434
6.013	0.9834	0.9910	1.1225	1.5237	1.6004	1.2562	0.9639
6.997	0.9842	0.9869	1.1021	1.4749	1.6019	1.2787	0.9749
8.006	0.9857	0.9874	1.0962	1.4511	1.5991	1.2831	0.9775
9.003	0.9851	0.9874	1.0931	1.4450	1.5981	1.2825	0.9765
10.024	0.9824	0.9880	1.0936	1.4470	1.6016	1.2855	0.9786
				$\omega\sqrt{\tau} = 0.06$			
1.994	0.9941	0.9857	0.9726	0.9726	0.9820	0.9978	0.9920
2.990	0.9874	0.9872	0.9742	0.9658	0.9671	0.9885	0.9866
3.999	0.7676	0.8623	0.9100	0.9143	0.9465	1.0389	1.1583
5.008	0.7280	0.8338	0.8679	0.8265	0.7477	0.7791	0.9203
5.998	0.7239	0.8307	0.8684	0.8183	0.7147	0.5949	0.7573
7.013	0.7063	0.8197	0.8614	0.8064	0.7018	0.5843	0.5618
7.993	0.7153	0.8259	0.8663	0.8103	0.7060	0.5887	0.4860
8.994	0.7148	0.8267	0.8664	0.8111	0.7068	0.5890	0.4844
9.984	0.7178	0.8292	0.8679	0.8124	0.7079	0.5900	0.4851
				$\omega\sqrt{\tau} = 0.15$			
1.988	0.9195	0.9389	0.9371	0.9302	0.9328	0.9457	0.9477
3.023	0.7128	0.8490	0.8919	0.8880	0.8879	0.8948	0.9057
4.006	0.4551	0.5659	0.7152	0.6875	0.6879	0.7851	0.8282
5.003	0.4535	0.5641	0.7099	0.6698	0.5679	0.4768	0.6074
5.999	0.4483	0.5463	0.7077	0.6679	0.5668	0.4767	0.4145
6.986	0.4464	0.5224	0.7144	0.6741	0.5726	0.4812	0.4156
7.994	0.4467	0.5293	0.7198	0.6792	0.5767	0.4838	0.4171
8.995	0.4459	0.5254	0.7184	0.6780	0.5758	0.4832	0.4167
9.994	0.4462	0.5288	0.7202	0.6797	0.5773	0.4844	0.4175
				$\omega\sqrt{\tau} = 0.21$			
2.003	0.7791	0.8756	0.9069	0.9027	0.9064	0.9162	0.9257
3.014	0.4482	0.6107	0.7743	0.8286	0.8596	0.8771	0.8859
4.006	0.4406	0.3176	0.6224	0.5958	0.5115	0.4763	0.6700
5.004	0.4369	0.3199	0.6206	0.5953	0.5114	0.4467	0.4293
6.000	0.4352	0.3215	0.6238	0.6003	0.5148	0.4488	0.4169
7.000	0.4338	0.3257	0.6097	0.6069	0.5196	0.4522	0.4178
7.995	0.4330	0.3274	0.5982	0.6079	0.5203	0.4534	0.4194
9.012	0.4333	0.3308	0.5975	0.6102	0.5221	0.4542	0.4190
10.023	0.4328	0.3327	0.5922	0.6095	0.5217	0.4542	0.4196

Table A70. Concluded

(c) Side surface

				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$			
2.002	0.9913	0.9928	0.9894	1.0584		1.0735	1.0996
3.001	1.0021	1.0011	0.9981	1.2386		1.7841	2.2678
3.995	1.0026	1.0034	1.0590	1.6849		1.3351	1.9000
5.006	0.9973	0.9999	1.2181	1.9759		1.4732	1.1882
6.013	0.9947	1.0007	1.3926	2.1984		1.5655	1.2691
6.997	0.9917	0.9955	1.3348	2.1651		1.5450	1.2565
8.006	0.9914	0.9958	1.3025	2.1633		1.5498	1.2576
9.003	0.9909	0.9944	1.2910	2.1688		1.5484	1.2553
10.024	0.9915	0.9971	1.3095	2.1705		1.5499	1.2549
				$\omega\sqrt{\tau} = 0.06$			
1.994	0.9855	0.9902	0.9901	1.0032		1.0200	1.0165
2.990	0.9664	0.9768	0.9728	0.9715		1.0591	1.0632
3.999	0.9408	0.9584	0.9266	0.8648		1.0010	1.1307
5.008	0.9418	0.9561	0.9251	0.8570		0.6662	0.8576
5.998	0.9437	0.9558	0.9245	0.8585		0.6684	0.5848
7.013	0.9408	0.9505	0.9171	0.8425		0.6467	0.5663
7.993	0.9441	0.9532	0.9205	0.8463		0.6519	0.5701
8.994	0.9438	0.9519	0.9197	0.8453		0.6500	0.5415
9.984	0.9454	0.9524	0.9212	0.8474		0.6523	0.4897
				$\omega\sqrt{\tau} = 0.15$			
1.988	0.9445	0.9567	0.9631	0.9622		0.9789	0.9674
3.023	0.8817	0.9008	0.9021	0.9082		0.9376	0.9385
4.006	0.8281	0.8592	0.7983	0.6961		0.7848	0.8224
5.003	0.8287	0.8574	0.7966	0.6929		0.5028	0.6482
5.999	0.8272	0.8536	0.7943	0.6905		0.5006	0.4776
6.986	0.8276	0.8535	0.7944	0.6892		0.4982	0.4376
7.994	0.8293	0.8542	0.7962	0.6907		0.4987	0.4378
8.995	0.8293	0.8543	0.7967	0.6915		0.4993	0.3713
9.994	0.8301	0.8536	0.7967	0.6913		0.4989	0.3345
				$\omega\sqrt{\tau} = 0.21$			
2.003	0.9022	0.9225	0.9347	0.9357		0.9425	0.9416
3.014	0.7592	0.8118	0.7750	0.7809		0.8727	0.8862
4.006	0.7468	0.7992	0.7264	0.6190		0.4631	0.6754
5.004	0.7504	0.7971	0.7255	0.6171		0.4436	0.4871
6.000	0.7544	0.7974	0.7283	0.6205		0.4453	0.3966
7.000	0.7534	0.7958	0.7277	0.6191		0.4436	0.3962
7.995	0.7509	0.7940	0.7262	0.6172		0.4412	0.3947
9.012	0.7518	0.7941	0.7273	0.6184		0.4417	0.3055
10.023	0.7506	0.7916	0.7260	0.6171		0.4407	0.2738

Table A71. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 12

$\left[\text{Dry power; } A_t = 3.50 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.62\text{; } \delta = 18°\text{; } h_u/h_l = 4.04\right]$

(a) Top surface

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9947	1.0026	0.9984	1.0024	0.9964	1.0378	1.1724	1.1944
2.997	0.9982	0.9946	1.0016	1.0165	1.0007	1.2940	1.2805	1.7803
4.011	1.0005	1.0176	1.0041	0.9950	2.8619	2.5261	1.7800	1.3622
4.997	1.0015	1.0013	1.0012	0.9654	3.5525	2.6164	1.9561	1.5118
5.973	1.0016	1.0096	0.9917	0.9459	4.1757	2.7437	2.0898	1.6231
5.995	1.0016	1.0047	0.9918	0.9470	4.1899	2.7495	2.0946	1.6255
7.009	1.0021	1.0016	0.9918	0.9374	4.1372	2.7440	2.0877	1.6256
8.007	1.0002	0.9974	0.9900	0.9298	4.0989	2.7316	2.0779	1.6150
9.008	0.9980	0.9994	0.9874	0.9231	4.0878	2.7228	2.0717	1.6072
10.009	0.9976	0.9975	0.9859	0.9195	4.0497	2.7208	2.0676	1.6057
				$\omega\sqrt{\tau}$ = 0.06				
1.996	0.9991	0.9952	0.9902	0.9958	0.9955	0.9997	1.0736	1.0750
2.991	0.9991	0.9895	0.9773	0.9849	0.9759	0.9751	1.0297	1.1078
4.011	1.0029	0.9895	0.9824	0.9991	0.9968	1.2500	1.0822	0.8538
4.992	0.9995	0.9879	0.9804	0.9896	0.9923	1.2616	1.0845	0.8553
5.984	0.9958	0.9839	0.9777	0.9826	0.9880	1.2545	1.0790	0.8513
6.989	0.9950	0.9840	0.9771	0.9809	0.9873	1.2562	1.0800	0.8525
7.995	0.9943	0.9838	0.9767	0.9798	0.9869	1.2512	1.0769	0.8513
8.991	0.9947	0.9855	0.9783	0.9801	0.9878	1.2632	1.0849	0.8570
9.995	0.9933	0.9826	0.9771	0.9786	0.9862	1.2439	1.0726	0.8489
				$\omega\sqrt{\tau}$ = 0.15				
1.978	0.9929	0.9799	0.9656	0.9772	0.9759	0.9750	0.9779	0.9846
2.987	0.9858	0.9589	0.9264	0.9435	0.9278	0.9231	0.9410	0.9704
4.003	0.9826	0.9468	0.9049	0.9185	0.8783	0.8023	0.6947	0.6860
4.990	0.9819	0.9454	0.9048	0.9167	0.8797	0.8041	0.6965	0.5758
5.995	0.9813	0.9448	0.9053	0.9152	0.8791	0.8038	0.6963	0.5748
6.998	0.9817	0.9437	0.9047	0.9151	0.8795	0.8046	0.6973	0.5759
8.013	0.9806	0.9428	0.9032	0.9140	0.8781	0.8023	0.6946	0.5735
8.992	0.9807	0.9419	0.9028	0.9143	0.8782	0.8020	0.6944	0.5732
9.987	0.9806	0.9423	0.9040	0.9152	0.8795	0.8045	0.6973	0.5759
				$\omega\sqrt{\tau}$ = 0.21				
1.986	0.9892	0.9648	0.9397	0.9585	0.9554	0.9514	0.9473	0.9457
3.005	0.9783	0.9206	0.8581	0.8817	0.8280	0.7767	0.8074	0.8744
4.020	0.9756	0.9184	0.8538	0.8707	0.8085	0.7085	0.5939	0.5524
4.992	0.9743	0.9152	0.8488	0.8657	0.8039	0.7027	0.5875	0.4796
5.989	0.9751	0.9154	0.8516	0.8687	0.8082	0.7082	0.5931	0.4838
6.995	0.9736	0.9149	0.8491	0.8670	0.8063	0.7059	0.5911	0.4825
8.018	0.9736	0.9147	0.8495	0.8682	0.8075	0.7073	0.5926	0.4838
8.988	0.9741	0.9154	0.8507	0.8696	0.8092	0.7096	0.5950	0.4858
9.982	0.9733	0.9146	0.8487	0.8683	0.8071	0.7069	0.5923	0.4835

Table A71. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9237	1.0052	0.9968	1.0045	1.0328	1.0726	1.0613
2.997	0.8252	1.1354	1.1480	1.2147	1.2951	1.3665	1.3567
4.011	1.0077	0.9750	1.0816	1.4020	1.3420	1.0375	1.9601
4.997	0.9926	0.9937	1.1667	1.6119	1.5209	1.1442	1.6693
5.973	0.9649	1.0139	1.2221	1.7639	1.6526	1.2519	0.9474
5.995	0.9636	1.0168	1.2301	1.7653	1.6538	1.2509	0.9469
7.009	0.9723	1.0043	1.1873	1.7065	1.6758	1.2767	0.9516
8.007	0.9739	1.0005	1.1740	1.6651	1.6781	1.2872	0.9547
9.008	0.9702	0.9987	1.1710	1.6636	1.6784	1.2870	0.9519
10.009	0.9736	1.0000	1.1682	1.6508	1.6721	1.2841	0.9490
				$\omega\sqrt{\tau} = 0.06$			
1.996	0.9966	0.9868	0.9708	0.9707	0.9820	0.9991	0.9918
2.991	0.9908	0.9853	0.9691	0.9602	0.9661	0.9915	0.9907
4.011	0.7348	0.8173	0.8866	0.8728	0.8503	1.0157	1.1845
4.992	0.7226	0.8072	0.8741	0.8420	0.7347	0.6100	0.8916
5.984	0.7177	0.8050	0.8696	0.8349	0.7306	0.5944	0.6169
6.989	0.7178	0.8022	0.8712	0.8330	0.7286	0.5972	0.4861
7.995	0.7143	0.7984	0.8711	0.8265	0.7220	0.5952	0.4833
8.991	0.7206	0.8054	0.8748	0.8305	0.7265	0.5989	0.4861
9.995	0.7126	0.8001	0.8711	0.8266	0.7219	0.5947	0.4832
				$\omega\sqrt{\tau} = 0.15$			
1.978	0.8734	0.9417	0.9379	0.9289	0.9327	0.9468	0.9480
2.987	0.6248	0.7230	0.8437	0.8715	0.8780	0.8937	0.9473
4.003	0.5265	0.4562	0.6951	0.6702	0.5876	0.7254	0.8163
4.990	0.5256	0.4481	0.6973	0.6710	0.5674	0.4711	0.5754
5.995	0.5242	0.4426	0.6962	0.6713	0.5685	0.4733	0.4079
6.998	0.5225	0.4068	0.7038	0.6770	0.5733	0.4767	0.4095
8.013	0.5188	0.3288	0.7095	0.6796	0.5758	0.4783	0.4104
8.992	0.5163	0.3139	0.7088	0.6785	0.5754	0.4785	0.4103
9.987	0.5161	0.3307	0.7117	0.6821	0.5779	0.4799	0.4112
				$\omega\sqrt{\tau} = 0.21$			
1.986	0.7649	0.8391	0.9054	0.8982	0.9018	0.9155	0.9293
3.005	0.5187	0.4907	0.7267	0.8076	0.8421	0.8734	0.8809
4.020	0.5166	0.3300	0.5815	0.5906	0.5067	0.4404	0.6417
4.992	0.5154	0.2969	0.5774	0.5847	0.5034	0.4394	0.4353
5.989	0.5140	0.2850	0.5893	0.5898	0.5080	0.4421	0.4172
6.995	0.5088	0.2798	0.5810	0.5870	0.5092	0.4438	0.4202
8.018	0.5085	0.2833	0.5778	0.5909	0.5138	0.4472	0.4189
8.988	0.5085	0.2907	0.5716	0.5930	0.5153	0.4480	0.4187
9.982	0.5085	0.2987	0.5599	0.5919	0.5149	0.4484	0.4208

Table A71. Concluded

(c) Side surface

NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$			
2.003	0.9939	0.9900	0.9850	1.0657		1.0930	1.1562
2.997	0.9992	0.9928	0.9974	1.0542		1.5154	1.5163
4.011	1.0058	0.9994	1.0531	1.6900		1.2364	2.1488
4.997	1.0000	0.9992	1.2530	1.9747		1.4881	1.9396
5.973	0.9959	1.0011	1.4550	2.1622		1.5945	1.7511
5.995	1.0002	1.0016	1.4221	2.1712		1.5991	1.7491
7.009	0.9984	1.0024	1.3911	2.1547		1.5898	1.4900
8.007	0.9953	1.0028	1.3523	2.1389		1.5897	1.2974
9.008	0.9954	0.9993	1.2942	2.1383		1.5875	1.1499
10.009	0.9948	0.9996	1.2863	2.1364		1.5763	1.0324
				$\omega\sqrt{\tau} = 0.06$			
1.996	0.9837	0.9886	0.9886	1.0015		1.0252	1.0455
2.991	0.9613	0.9720	0.9695	0.9724		1.0302	1.0765
4.011	0.9432	0.9629	0.9328	0.8673		0.9745	1.2081
4.992	0.9453	0.9599	0.9307	0.8643		0.6598	0.9761
5.984	0.9428	0.9560	0.9268	0.8614		0.6555	0.8112
6.989	0.9442	0.9552	0.9265	0.8601		0.6534	0.6955
7.995	0.9448	0.9533	0.9256	0.8564		0.6492	0.6067
8.991	0.9466	0.9555	0.9268	0.8568		0.6499	0.5428
9.995	0.9438	0.9518	0.9242	0.8527		0.6437	0.4837
				$\omega\sqrt{\tau} = 0.15$			
1.978	0.9430	0.9552	0.9627	0.9632		0.9809	0.9763
2.987	0.8711	0.8954	0.8999	0.9165		0.9513	0.9701
4.003	0.8218	0.8545	0.7960	0.6936		0.7542	0.8192
4.990	0.8248	0.8538	0.7973	0.6947		0.5000	0.6601
5.995	0.8262	0.8518	0.7976	0.6954		0.4999	0.5502
6.998	0.8264	0.8514	0.7980	0.6951		0.4983	0.4724
8.013	0.8240	0.8487	0.7960	0.6921		0.4947	0.4106
8.992	0.8238	0.8475	0.7957	0.6911		0.4933	0.3653
9.987	0.8255	0.8485	0.7972	0.6929		0.4945	0.3307
				$\omega\sqrt{\tau} = 0.21$			
1.986	0.8982	0.9181	0.9320	0.9350		0.9407	0.9456
3.005	0.7442	0.8037	0.7646	0.7658		0.8572	0.8809
4.020	0.7373	0.7929	0.7254	0.6191		0.4430	0.6741
4.992	0.7360	0.7867	0.7205	0.6139		0.4377	0.5362
5.989	0.7444	0.7888	0.7258	0.6195		0.4407	0.4531
6.995	0.7420	0.7863	0.7243	0.6172		0.4386	0.3858
8.018	0.7426	0.7858	0.7254	0.6177		0.4377	0.3377
8.988	0.7442	0.7856	0.7272	0.6194		0.4390	0.3024
9.982	0.7417	0.7834	0.7249	0.6173		0.4368	0.2709

Column heading: x/L

Table A72. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 13

$\left[\text{Top surface only; AB power; } A_t = 6.00 \text{ in}^2;\ A_e/A_t = 1.52;\ A_{ej}/A_t = 0.12;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.005	0.9874	0.9930	0.9735	1.0794	1.4976	1.9510	2.1253	2.2629
3.007	0.9895	0.9839	0.9968	1.4467	1.5437	1.3120	1.0966	1.7961
4.007	0.9940	0.9951	0.9923	2.0105	1.9196	1.6208	1.3560	1.1447
5.008	0.9952	0.9981	0.9932	2.0527	1.9493	1.6435	1.3759	1.1628
6.002	0.9955	0.9982	0.9914	2.0915	1.9689	1.6584	1.3846	1.1692
				$\omega\sqrt{\tau} = 0.01$				
2.009	0.9982	0.9776	0.9825	0.9780	1.0538	1.1572	1.2371	1.3083
3.010	1.0059	0.9519	0.9621	1.0275	1.1700	1.0162	0.8536	1.3744
4.002	1.0043	0.9521	0.9651	1.0380	1.1886	1.0326	0.8680	0.7347
5.001	1.0044	0.9528	0.9681	1.0460	1.1961	1.0362	0.8699	0.7368
6.009	1.0056	0.9550	0.9721	1.0631	1.2189	1.0571	0.8873	0.7508
				$\omega\sqrt{\tau} = 0.03$				
2.010	0.9984	0.9009	0.9219	0.9505	0.9869	1.0607	1.1218	1.1775
2.997	0.9980	0.7605	0.8052	0.8842	0.8643	0.7640	0.6495	1.0337
4.002	0.9991	0.7568	0.8082	0.8869	0.8697	0.7702	0.6564	0.5602
5.005	0.9997	0.7527	0.8102	0.8887	0.8726	0.7710	0.6572	0.5611
6.008	1.0006	0.7546	0.8193	0.8933	0.8800	0.7769	0.6617	0.5646
				$\omega\sqrt{\tau} = 0.05$				
2.010	0.9958	0.7488	0.7856	0.8941	0.9365	0.9956	1.0440	1.0884
3.007	0.9955	0.6125	0.5497	0.7036	0.6315	0.5489	0.4698	0.7425
4.003	0.9971	0.6110	0.5445	0.7037	0.6314	0.5499	0.4717	0.4067
5.005	0.9969	0.6113	0.5361	0.7062	0.6328	0.5509	0.4728	0.4067
6.012	0.9973	0.6106	0.5227	0.7080	0.6337	0.5516	0.4730	0.4069

Table A73. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 14

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.9937	0.9988	0.9931	1.3923	1.4303	1.3042	1.1738	1.0489
3.003	0.9944	0.9971	0.9752	2.2109	1.7614	1.4164	1.1577	0.9466
4.021	0.9967	0.9612	0.6749	3.0898	2.5168	2.0106	1.5980	1.2318
5.006	0.9973	0.9508	0.6197	3.1485	2.5851	2.0674	1.6449	1.2667
5.994	0.9932	0.9445	0.6047	3.1584	2.5987	2.0801	1.6558	1.2754
				$\omega\sqrt{\tau} = 0.01$				
2.006	1.0017	0.9991	0.9988	1.2900	1.3555	1.2352	1.1337	0.9887
2.999	1.0013	0.9999	0.9920	1.8123	1.5568	1.2519	1.0244	0.8392
3.996	1.0024	0.9960	0.9667	2.4047	1.8488	1.4564	1.1498	0.8845
5.013	1.0024	0.9887	0.9251	2.6747	2.0495	1.6244	1.2842	0.9870
6.010	1.0023	0.9896	0.9233	2.6836	2.0595	1.6335	1.2916	0.9933
				$\omega\sqrt{\tau} = 0.03$				
2.000	0.9979	0.9973	0.9989	1.1989	1.2908	1.1816	1.0881	0.9546
2.998	1.0003	0.9948	0.9973	1.4307	1.3414	1.0760	0.8770	0.7052
3.996	0.9993	0.9972	0.9973	1.5891	1.4045	1.1030	0.8700	0.6698
4.998	0.9991	0.9963	0.9964	1.5866	1.4017	1.1022	0.8700	0.6694
6.006	1.0000	0.9970	0.9962	1.5934	1.4058	1.1063	0.8738	0.6729
				$\omega\sqrt{\tau} = 0.05$				
1.995	0.9993	0.9845	0.9832	1.0648	1.1428	1.0660	1.0010	0.8838
3.021	0.9977	0.9755	0.9726	1.1258	1.1032	0.8901	0.7229	0.5748
3.998	0.9966	0.9709	0.9675	1.1079	1.0750	0.8545	0.6783	0.5246
5.014	0.9973	0.9755	0.9741	1.1459	1.1082	0.8802	0.6986	0.5394
5.993	0.9967	0.9749	0.9745	1.1426	1.1048	0.8781	0.6972	0.5388

Table A73. Continued

(b) Bottom surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.9801	0.9913	0.9909	1.0015	1.0205	1.0610	1.0727
3.003	0.9782	0.9827	0.9658	0.9825	1.0229	1.0880	1.1560
4.021	0.9468	0.9363	0.9445	0.9293	0.9885	1.2314	1.4311
5.006	0.9192	0.9114	0.9424	0.9362	0.9811	1.2210	1.3271
5.994	0.9053	0.9040	0.9462	0.9372	0.9810	1.2253	1.2808
				$\omega\sqrt{\tau}$ = 0.01			
2.006	0.9720	0.9694	0.9640	0.9684	0.9806	1.0037	1.0261
2.999	0.9454	0.9456	0.9405	0.9296	0.9291	0.9631	1.0290
3.996	0.8575	0.8626	0.8820	0.8693	0.8719	0.8928	0.9588
5.013	0.7398	0.5386	0.7927	0.8413	0.8676	0.9036	0.9586
6.010	0.7386	0.5104	0.7805	0.8353	0.8674	0.9031	0.9209
				$\omega\sqrt{\tau}$ = 0.03			
2.000	0.9374	0.9382	0.9341	0.9353	0.9477	0.9680	0.9919
2.998	0.8041	0.7816	0.8347	0.8297	0.8297	0.8376	0.8658
3.996	0.7314	0.3950	0.4876	0.5826	0.6499	0.7073	0.7510
4.998	0.7292	0.3711	0.4709	0.5642	0.6048	0.6455	0.6664
6.006	0.7296	0.3626	0.4722	0.5652	0.6021	0.6367	0.6427
				$\omega\sqrt{\tau}$ = 0.05			
1.995	0.8477	0.8219	0.8748	0.8762	0.8751	0.8830	0.9205
3.021	0.7303	0.5182	0.6875	0.7172	0.7126	0.7211	0.7434
3.998	0.7266	0.3030	0.3747	0.4672	0.5201	0.5649	0.5834
5.014	0.7257	0.2877	0.3772	0.4690	0.5213	0.5644	0.5471
5.993	0.7254	0.2293	0.3735	0.4747	0.5239	0.5659	0.5349

Table A73. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.9973	0.9865	1.0771	1.1286		1.1048	1.0735
3.003	0.9958	0.9911	1.1831	1.3836		1.1483	1.1024
4.021	0.9904	0.9600	1.9089	1.8200		1.2469	1.0336
5.006	0.9876	0.9518	2.0145	1.8655		1.2738	1.0516
5.994	0.9854	0.9533	2.0439	1.8740		1.2762	1.0547
				$\omega\sqrt{\tau} = 0.01$			
2.006	0.9892	0.9814	1.0203	1.1055		1.0570	1.0099
2.999	0.9793	0.9742	1.0329	1.1912		1.0884	1.0111
3.996	0.9827	0.9742	1.0593	1.2093		0.9368	0.8234
5.013	0.9861	0.9762	1.2510	1.4254		1.0002	0.8172
6.010	0.9867	0.9764	1.2630	1.4348		1.0046	0.8202
				$\omega\sqrt{\tau} = 0.03$			
2.000	0.9699	0.9605	0.9587	1.0661		1.0220	0.9717
2.998	0.9266	0.9139	0.9062	0.9143		0.9704	0.8839
3.996	0.9174	0.9033	0.8573	0.7892		0.6479	0.5386
4.998	0.9179	0.9030	0.8580	0.7871		0.6469	0.5371
6.006	0.9184	0.9065	0.8603	0.7900		0.6488	0.5383
				$\omega\sqrt{\tau} = 0.05$			
1.995	0.9086	0.8946	0.9043	0.9434		0.9552	0.9169
3.021	0.8477	0.8243	0.7984	0.7180		0.7266	0.7649
3.998	0.8215	0.7898	0.7536	0.6422		0.4763	0.4052
5.014	0.8330	0.8063	0.7657	0.6551		0.4893	0.4145
5.993	0.8306	0.8048	0.7644	0.6535		0.4872	0.4119

Table A74. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 15

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 1.51\right]$

(a) Top surface

				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$				
2.004	0.9976	0.9993	0.9967	1.0143	1.4462	1.4223	1.2928	1.1064
2.999	0.9962	1.0015	0.9921	1.4208	1.9719	1.5911	1.3045	1.0804
4.004	0.9989	0.9931	0.9695	2.5339	2.4224	1.9064	1.5182	1.1789
5.000	0.9966	0.9938	0.9673	2.5521	2.4220	1.9071	1.5197	1.1790
6.001	0.9968	0.9920	0.9668	2.5705	2.4262	1.9117	1.5236	1.1822
				$\omega\sqrt{\tau} = 0.01$				
1.994	0.9955	0.9974	0.9966	0.9890	1.3189	1.3146	1.2047	1.0350
2.989	0.9975	0.9931	0.9947	1.0129	1.4344	1.2313	1.0191	0.8561
4.007	0.9981	0.9968	0.9969	1.1924	1.7078	1.3760	1.0916	0.8435
5.012	0.9980	0.9967	0.9964	1.2457	1.7479	1.4050	1.1148	0.8602
6.003	0.9985	0.9988	0.9973	1.2492	1.7365	1.3989	1.1106	0.8574
				$\omega\sqrt{\tau} = 0.03$				
1.997	0.9946	0.9902	0.9886	0.9890	1.1582	1.1738	1.0875	0.9505
2.992	0.9968	0.9766	0.9769	0.9898	1.1120	0.9999	0.8337	0.6867
4.006	0.9962	0.9795	0.9802	0.9905	1.1673	1.0140	0.8168	0.6353
4.986	0.9966	0.9780	0.9799	0.9905	1.1542	1.0052	0.8113	0.6311
6.001	0.9956	0.9782	0.9800	0.9896	1.1597	1.0103	0.8157	0.6343
				$\omega\sqrt{\tau} = 0.05$				
1.994	0.9959	0.9656	0.9632	0.9727	0.9800	0.9704	0.9117	0.8313
2.996	0.9939	0.9418	0.9400	0.9482	0.9175	0.8227	0.6898	0.5623
4.009	0.9942	0.9431	0.9421	0.9498	0.9216	0.8138	0.6656	0.5218
4.995	0.9935	0.9435	0.9426	0.9493	0.9214	0.8144	0.6670	0.5227
6.001	0.9937	0.9443	0.9441	0.9498	0.9232	0.8168	0.6691	0.5244

Table A74. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	1.0009	1.0374	1.0119	1.0157	1.0342	1.0789	1.0787
2.999	1.0024	1.1102	1.0425	1.0649	1.1085	1.1742	1.1819
4.004	1.0035	0.5472	0.6210	0.7243	0.9241	0.8990	1.1889
5.000	0.9997	0.5404	0.6155	0.7176	0.9310	0.9039	0.8058
6.001	1.0003	0.5356	0.6142	0.7166	0.9386	0.9069	0.7972
				$\omega\sqrt{\tau} = 0.01$			
1.994	0.9987	0.9724	0.9549	0.9587	0.9752	1.0128	1.0181
2.989	0.9998	0.8756	0.8393	0.8500	0.8715	0.9073	0.9087
4.007	0.9984	0.3325	0.4441	0.5831	0.7154	0.6532	0.8236
5.012	0.9985	0.3358	0.4446	0.5879	0.7348	0.6682	0.5533
6.003	0.9979	0.3292	0.4364	0.5852	0.7406	0.6677	0.5511
				$\omega\sqrt{\tau} = 0.03$			
1.997	0.9988	0.8925	0.8766	0.8799	0.8924	0.9259	0.9341
2.992	0.9989	0.6938	0.6638	0.6812	0.7057	0.7405	0.7570
4.006	0.9978	0.2241	0.3304	0.4803	0.5765	0.5343	0.5554
4.986	0.9984	0.2163	0.3226	0.4772	0.5801	0.5345	0.4702
6.001	0.9976	0.2134	0.3205	0.4776	0.5901	0.5372	0.4698
				$\omega\sqrt{\tau} = 0.05$			
1.994	0.9998	0.7853	0.7627	0.7707	0.7909	0.8245	0.8308
2.996	0.9978	0.5295	0.5075	0.5400	0.5755	0.6136	0.6573
4.009	0.9982	0.1621	0.2614	0.4169	0.5128	0.5262	0.5516
4.995	0.9975	0.1615	0.2599	0.4145	0.5174	0.5264	0.5382
6.001	0.9974	0.1599	0.2574	0.4114	0.5253	0.5259	0.5398

Table A74. Concluded

(c) Side surface

$\omega\sqrt{\tau} = 0.00$

NPR	x/L = -0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.9994	0.9884	1.0862	1.1279		1.1256	1.1074
2.999	0.9956	0.9934	1.2702	1.3611		1.2621	1.2322
4.004	0.9988	0.9934	1.5089	1.5215		1.1071	0.9037
5.000	0.9965	0.9924	1.5037	1.5301		1.1085	0.9046
6.001	0.9969	0.9928	1.5088	1.5364		1.1096	0.9057
				$\omega\sqrt{\tau} = 0.01$			
1.994	0.9885	0.9840	1.0207	1.0750		1.0570	1.0334
2.989	0.9591	0.9592	0.9749	1.0006		0.9819	0.9820
4.007	0.9709	0.9663	0.9617	0.9450		0.7420	0.6234
5.012	0.9739	0.9701	0.9669	0.9710		0.7636	0.6392
6.003	0.9736	0.9696	0.9632	0.9666		0.7599	0.6356
				$\omega\sqrt{\tau} = 0.03$			
1.997	0.9498	0.9487	0.9462	0.9676		0.9691	0.9515
2.992	0.8844	0.8826	0.8701	0.8091		0.7295	0.7857
4.006	0.8741	0.8668	0.8275	0.7139		0.5251	0.4706
4.986	0.8695	0.8619	0.8236	0.7095		0.5210	0.4423
6.001	0.8711	0.8630	0.8254	0.7119		0.5233	0.4438
				$\omega\sqrt{\tau} = 0.05$			
1.994	0.8725	0.8656	0.8781	0.8543		0.8451	0.8473
2.996	0.7948	0.7804	0.7748	0.6896		0.5520	0.6520
4.009	0.7762	0.7575	0.7341	0.6217		0.4453	0.4135
4.995	0.7742	0.7557	0.7346	0.6214		0.4457	0.3731
6.001	0.7737	0.7551	0.7360	0.6221		0.4462	0.3733

Table A75. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 16

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.52\text{; } A_{ej}/A_t = 0.12\text{; } \delta = 18°\text{; } h_u/h_l = 2.06\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.996	0.9923	1.0016	0.9936	1.2993	1.4459	1.3193	1.1906	1.0567
3.004	0.9933	1.0011	0.9786	2.2075	1.8235	1.4640	1.1948	0.9682
3.994	0.9947	0.9713	0.7679	3.1364	2.5330	2.0279	1.6154	1.2530
5.005	0.9970	0.9582	0.7265	3.1811	2.5955	2.0810	1.6595	1.2848
5.997	0.9947	0.9560	0.7121	3.1893	2.6093	2.0918	1.6691	1.2924
				$\omega\sqrt{\tau} = 0.01$				
1.995	0.9969	0.9977	0.9976	1.2155	1.3723	1.2502	1.1448	0.9977
3.008	0.9974	0.9983	0.9901	1.7785	1.6250	1.3068	1.0704	0.8852
3.998	0.9995	0.9961	0.9752	2.3712	1.8734	1.4729	1.1637	0.9002
5.001	1.0040	0.9957	0.9627	2.5628	1.9782	1.5609	1.2350	0.9541
6.010	1.0037	0.9963	0.9669	2.5011	1.9455	1.5341	1.2134	0.9366
				$\omega\sqrt{\tau} = 0.03$				
1.989	0.9946	0.9905	0.9942	1.0880	1.2528	1.1539	1.0632	0.9308
2.994	0.9969	0.9927	0.9915	1.2699	1.3180	1.0648	0.8711	0.7072
3.998	0.9971	0.9930	0.9936	1.3799	1.3634	1.0750	0.8502	0.6583
5.001	0.9990	0.9929	0.9938	1.3790	1.3585	1.0720	0.8484	0.6560
6.006	1.0000	0.9945	0.9952	1.4204	1.3834	1.0915	0.8636	0.6676
				$\omega\sqrt{\tau} = 0.05$				
1.998	0.9956	0.9798	0.9774	1.0184	1.1151	1.0411	0.9717	0.8544
2.984	0.9948	0.9651	0.9627	1.0279	1.0628	0.8715	0.7102	0.5700
3.995	0.9968	0.9660	0.9615	1.0347	1.0572	0.8513	0.6786	0.5277
5.002	0.9981	0.9703	0.9686	1.0628	1.0903	0.8754	0.6972	0.5410
6.009	0.9978	0.9703	0.9690	1.0616	1.0878	0.8737	0.6960	0.5401

Table A75. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.996	0.9788	0.9946	0.9915	1.0005	1.0602	1.0184	1.0692
3.004	0.9706	0.9869	0.9720	0.9945	1.1114	1.0403	1.1822
3.994	0.9357	0.9121	0.9257	0.9316	1.1883	0.9906	1.4295
5.005	0.9028	0.8768	0.9137	0.9350	1.1703	0.9836	1.3217
5.997	0.8859	0.8609	0.9203	0.9340	1.1721	0.9862	1.2788
				$\omega\sqrt{\tau} = 0.01$			
1.995	0.9789	0.9726	0.9647	0.9675	1.0063	0.9796	1.0253
3.008	0.9677	0.9627	0.9499	0.9378	0.9849	0.9431	1.0424
3.998	0.8330	0.7967	0.8094	0.8239	0.8855	0.8525	0.9606
5.001	0.7622	0.4347	0.7150	0.7768	0.8548	0.8172	0.8967
6.010	0.7602	0.3945	0.6839	0.7474	0.8332	0.7909	0.8432
				$\omega\sqrt{\tau} = 0.03$			
1.989	0.9220	0.9130	0.9101	0.9063	0.9330	0.9105	0.9656
2.994	0.8289	0.8082	0.8070	0.7986	0.8209	0.8040	0.8383
3.998	0.7541	0.3475	0.4543	0.5439	0.6565	0.5959	0.7165
5.001	0.7520	0.3327	0.4458	0.5373	0.5840	0.5706	0.6365
6.006	0.7522	0.3304	0.4518	0.5466	0.5803	0.5776	0.6228
				$\omega\sqrt{\tau} = 0.05$			
1.998	0.8607	0.8477	0.8400	0.8375	0.8640	0.8483	0.8750
2.984	0.7552	0.5203	0.6646	0.6936	0.6988	0.6891	0.7188
3.995	0.7494	0.2753	0.3664	0.4532	0.5526	0.5071	0.5741
5.002	0.7495	0.2009	0.3664	0.4680	0.5514	0.5151	0.5421
6.009	0.7490	0.1960	0.3534	0.4801	0.5521	0.5196	0.5334

Table A75. Concluded

(c) Side surface

				$\omega\sqrt{\tau}$ = 0.00			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.996	0.9992	0.9807	1.0655	1.1221		1.1075	1.0786
3.004	0.9968	0.9880	1.1563	1.3803		1.1958	1.1261
3.994	0.9919	0.9665	1.8158	1.8281		1.2656	1.0466
5.005	0.9880	0.9619	1.9092	1.8771		1.2890	1.0616
5.997	0.9874	0.9578	1.9393	1.8889		1.2924	1.0638
				$\omega\sqrt{\tau}$ = 0.01			
1.995	0.9914	0.9861	1.0062	1.0935		1.0594	1.0157
3.008	0.9869	0.9848	1.0486	1.2156		1.1190	1.0477
3.998	0.9816	0.9772	1.0336	1.1708		0.9251	0.7906
5.001	0.9866	0.9792	1.1046	1.2855		0.9590	0.7850
6.010	0.9829	0.9741	1.0677	1.2504		0.9401	0.7685
				$\omega\sqrt{\tau}$ = 0.03			
1.989	0.9576	0.9510	0.9345	1.0164		0.9939	0.9517
2.994	0.9218	0.9152	0.9039	0.8922		0.9343	0.8688
3.998	0.9086	0.8963	0.8466	0.7523		0.6103	0.5173
5.001	0.9076	0.8938	0.8453	0.7491		0.6082	0.5155
6.006	0.9131	0.8986	0.8536	0.7608		0.6223	0.5254
				$\omega\sqrt{\tau}$ = 0.05			
1.998	0.9018	0.8910	0.8996	0.9011		0.9123	0.8884
2.984	0.8379	0.8187	0.7912	0.7092		0.7086	0.7475
3.995	0.8197	0.7935	0.7522	0.6382		0.4701	0.4097
5.002	0.8294	0.8043	0.7636	0.6498		0.4815	0.4075
6.009	0.8280	0.8031	0.7630	0.6493		0.4806	0.4051

Table A76. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 17

$\left[\text{Top surface only; AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.001	0.9964	0.9899	0.9882	0.9811	0.9938	1.0563	1.1215	1.1794
3.013	0.9976	0.9777	0.9891	0.9929	1.3401	1.2210	1.0067	1.8665
4.003	0.9992	0.9928	0.9952	1.0422	1.5624	1.3753	1.1254	0.9772
5.002	1.0008	0.9985	0.9968	1.2296	1.8282	1.5644	1.2740	1.0631
5.999	1.0015	0.9992	0.9967	1.5549	2.1086	1.7747	1.4482	1.2129
				$\omega\sqrt{\tau} = 0.02$				
1.998	1.0009	0.9863	0.9908	0.9894	0.9844	1.0020	1.0484	1.0981
3.002	1.0079	0.9313	0.9624	0.9675	1.0427	0.9932	0.8406	1.5530
3.995	1.0057	0.9231	0.9568	0.9614	1.0353	0.9843	0.8303	0.8366
4.996	1.0041	0.9287	0.9590	0.9641	1.0606	1.0047	0.8467	0.7106
6.013	1.0032	0.9283	0.9598	0.9652	1.0777	1.0151	0.8531	0.7160
				$\omega\sqrt{\tau} = 0.06$				
1.997	0.9955	0.9043	0.9469	0.9544	0.9550	0.9548	0.9704	1.0018
2.990	0.9941	0.7374	0.8479	0.8916	0.9100	0.9525	1.0126	1.0600
4.012	0.9940	0.6565	0.7982	0.8295	0.7745	0.6969	0.5977	0.7589
5.008	0.9906	0.6455	0.7863	0.8211	0.7646	0.6857	0.5890	0.5013
6.011	0.9920	0.6613	0.7923	0.8271	0.7711	0.6928	0.5948	0.5057
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.9935	0.7947	0.8840	0.9029	0.9103	0.9168	0.9273	0.9481
3.009	0.9873	0.4439	0.6246	0.7149	0.7484	0.8082	0.8386	0.8655
3.990	0.9869	0.4603	0.5692	0.6763	0.6191	0.5391	0.4566	0.6102
5.008	0.9874	0.4570	0.5825	0.6832	0.6247	0.5440	0.4617	0.3918
6.002	0.9864	0.4607	0.5797	0.6873	0.6267	0.5456	0.4628	0.3924

Table A77. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 18

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.011	0.9960	0.9949	0.9949	0.9862	1.2706	1.3056	1.2228	1.0810
3.000	0.9970	0.9977	0.9952	1.0952	1.5747	1.3057	1.0776	0.9099
3.996	0.9980	1.0038	0.9850	2.2643	2.2900	1.7797	1.4195	1.1243
4.993	1.0004	0.9906	0.8604	3.9226	3.0083	2.4125	1.9285	1.5016
6.013	1.0006	0.9406	0.7553	3.8944	3.2760	2.6470	2.1305	1.6585
				$\omega\sqrt{\tau} = 0.02$				
2.012	0.9960	0.9915	0.9925	0.9862	1.2333	1.2660	1.1866	1.0419
3.007	0.9979	0.9976	0.9949	1.0213	1.4222	1.2103	1.0213	0.9057
3.977	0.9991	0.9955	0.9970	1.3644	1.8263	1.4611	1.1744	0.9293
5.008	1.0007	0.9976	0.9916	1.8916	2.1280	1.6476	1.2975	1.0039
5.999	1.0021	0.9973	0.9872	2.2350	2.2724	1.7596	1.3916	1.0755
				$\omega\sqrt{\tau} = 0.06$				
1.998	0.9951	0.9773	0.9824	0.9898	1.1368	1.1840	1.1262	0.9978
3.010	0.9959	0.9620	0.9760	0.9877	1.2078	1.0567	0.8749	0.7301
4.016	0.9949	0.9645	0.9855	1.0149	1.3704	1.1311	0.8982	0.6993
5.011	0.9960	0.9708	0.9860	1.0182	1.3648	1.1281	0.8989	0.6981
5.998	0.9951	0.9756	0.9861	1.0248	1.3712	1.1329	0.9048	0.7014
				$\omega\sqrt{\tau} = 0.09$				
2.000	0.9933	0.9546	0.9630	0.9826	1.0430	1.0897	1.0556	0.9515
2.995	0.9923	0.9331	0.9480	0.9714	1.0315	0.9199	0.7622	0.6234
3.975	0.9902	0.9290	0.9480	0.9704	1.0341	0.8992	0.7256	0.5703
4.999	0.9911	0.9315	0.9513	0.9730	1.0463	0.9090	0.7349	0.5755
5.998	0.9915	0.9361	0.9528	0.9746	1.0569	0.9170	0.7426	0.5801

Table A77. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.011	0.9509	0.9878	0.9903	0.9960	1.0146	1.0298	1.0218
3.000	0.9100	0.9809	0.9822	0.9905	1.0165	1.0367	1.0238
3.996	0.9214	0.9741	0.9815	1.0186	1.0688	1.1427	1.1566
4.993	0.9902	0.9804	0.9708	0.9600	1.0240	1.1609	1.3468
6.013	0.9442	0.9523	0.9655	0.9747	0.9761	1.0698	1.2306
				$\omega\sqrt{\tau} = 0.02$			
2.012	0.9871	0.9819	0.9753	0.9755	0.9874	1.0027	0.9982
3.007	0.9941	0.9919	0.9830	0.9705	0.9708	0.9745	0.9680
3.977	0.9591	0.9701	0.9641	0.9478	0.9415	0.9499	0.9458
5.008	0.8813	0.9220	0.9270	0.9291	0.9261	0.9205	0.9128
5.999	0.6836	0.6663	0.7524	0.7649	0.7987	0.8328	0.8454
				$\omega\sqrt{\tau} = 0.06$			
1.998	0.9471	0.9625	0.9577	0.9483	0.9467	0.9570	0.9556
3.010	0.8545	0.9055	0.9103	0.9073	0.9041	0.9013	0.8995
4.016	0.6593	0.6618	0.6856	0.7099	0.7396	0.7629	0.7765
5.011	0.6580	0.2772	0.4933	0.5586	0.5459	0.5041	0.6150
5.998	0.6574	0.2784	0.4967	0.5606	0.5458	0.4799	0.4686
				$\omega\sqrt{\tau} = 0.09$			
2.000	0.8715	0.9158	0.9205	0.9155	0.9129	0.9179	0.9170
2.995	0.7130	0.7807	0.8120	0.8064	0.8017	0.8043	0.8050
3.975	0.6565	0.3443	0.5142	0.5872	0.6161	0.6237	0.6266
4.999	0.6565	0.2765	0.3643	0.4690	0.4856	0.4386	0.4668
5.998	0.6540	0.2778	0.3706	0.4679	0.4860	0.4393	0.3885

Table A77. Concluded

(c) Side surface

			$\omega\sqrt{\tau} = 0.00$				
			x/L				
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.011	0.9926	0.9946	0.9986	1.0271		1.0462	1.0474
3.000	0.9794	0.9827	0.9873	1.0993		1.1134	1.0545
3.996	0.9915	0.9895	1.0142	1.3205		1.2526	1.1080
4.993	0.9907	0.9779	1.5680	2.0527		1.4242	1.1652
6.013	0.9806	0.9494	1.9816	2.2708		1.5369	1.2486
			$\omega\sqrt{\tau} = 0.02$				
2.012	0.9860	0.9889	0.9812	1.0087		1.0189	1.0105
3.007	0.9747	0.9815	0.9848	1.0531		1.0712	0.9782
3.977	0.9733	0.9758	0.9717	1.0167		1.0728	1.0136
5.008	0.9672	0.9699	0.9469	1.0521		0.9767	0.8579
5.999	0.9659	0.9658	0.9358	1.1786		1.0130	0.8263
			$\omega\sqrt{\tau} = 0.06$				
1.998	0.9471	0.9589	0.9628	0.9696		0.9903	0.9618
3.010	0.8892	0.9160	0.9139	0.9124		0.9661	0.9170
4.016	0.8552	0.8712	0.8155	0.7141		0.5659	0.6666
5.011	0.8506	0.8683	0.8118	0.7073		0.5376	0.4674
5.998	0.8522	0.8679	0.8134	0.7094		0.5405	0.4700
			$\omega\sqrt{\tau} = 0.09$				
2.000	0.8948	0.9196	0.9332	0.9289		0.9588	0.9258
2.995	0.7950	0.8337	0.8163	0.7892		0.8193	0.8260
3.975	0.7521	0.7874	0.7357	0.6254		0.4532	0.6092
4.999	0.7544	0.7885	0.7386	0.6272		0.4476	0.3881
5.998	0.7582	0.7906	0.7409	0.6299		0.4501	0.3720

Table A78. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 19

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 2.12\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.9976	0.9974	0.9957	0.9963	1.0660	1.2535	1.2802	1.1557
3.005	0.9981	1.0062	0.9971	0.9891	1.4700	1.4809	1.2448	1.0396
3.999	1.0030	1.0062	0.9866	1.3307	3.0424	2.3127	1.8404	1.4456
5.016	1.0020	0.9824	0.9563	2.0472	3.3393	2.6259	2.1188	1.6668
6.002	1.0010	0.9809	0.9481	2.2167	3.3733	2.6708	2.1628	1.6994
				$\omega\sqrt{\tau} = 0.02$				
2.011	0.9974	0.9866	0.9953	0.9979	1.0343	1.1945	1.2134	1.0924
3.001	0.9978	0.9886	0.9911	0.9952	1.1241	1.2120	1.0743	0.9410
3.985	0.9986	0.9940	0.9974	0.9793	1.6197	1.5260	1.2341	0.9661
5.001	0.9996	0.9969	0.9976	0.9648	1.7923	1.6291	1.3116	1.0213
5.994	0.9991	0.9948	0.9976	0.9649	1.7612	1.6102	1.3028	1.0132
				$\omega\sqrt{\tau} = 0.06$				
2.006	0.9955	0.9707	0.9822	0.9873	0.9915	1.0639	1.0837	0.9931
2.999	0.9928	0.9481	0.9664	0.9695	0.9672	0.9753	0.8840	0.7811
4.025	0.9922	0.9523	0.9681	0.9749	0.9953	1.0251	0.8764	0.7008
5.002	0.9912	0.9531	0.9674	0.9739	0.9932	1.0206	0.8753	0.6993
5.994	0.9922	0.9547	0.9682	0.9745	0.9957	1.0242	0.8794	0.7013
				$\omega\sqrt{\tau} = 0.09$				
1.999	0.9906	0.9485	0.9621	0.9674	0.9664	0.9719	0.9773	0.9206
2.995	0.9874	0.9073	0.9307	0.9308	0.8958	0.8315	0.7397	0.6354
4.026	0.9862	0.9035	0.9271	0.9277	0.8898	0.8160	0.7041	0.5704
5.001	0.9865	0.9055	0.9272	0.9280	0.8908	0.8184	0.7077	0.5726
5.992	0.9862	0.9029	0.9250	0.9248	0.8863	0.8117	0.7024	0.5676

Table A78. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.9630	1.0230	1.0102	1.0140	1.0326	1.0476	1.0367
3.005	0.9127	1.0964	1.0643	1.0800	1.1218	1.1547	1.1373
3.999	0.9827	0.9830	1.0110	1.1791	1.3236	1.4476	1.5344
5.016	0.9432	0.9061	0.9309	1.0103	1.1459	1.2824	1.4328
6.002	0.9059	0.8537	0.8922	0.9175	0.9959	1.0126	1.2166
				$\omega\sqrt{\tau} = 0.02$			
2.011	0.9918	0.9965	0.9841	0.9848	0.9954	1.0011	0.9951
3.001	0.9973	0.9919	0.9687	0.9622	0.9741	0.9840	0.9684
3.985	0.9390	0.9235	0.8857	0.8680	0.8955	0.9432	0.9693
5.001	0.8017	0.3518	0.6089	0.6792	0.7431	0.8123	0.8468
5.994	0.8008	0.3234	0.5988	0.6647	0.6867	0.6071	0.6715
				$\omega\sqrt{\tau} = 0.06$			
2.006	0.9579	0.9402	0.9272	0.9214	0.9271	0.9330	0.9296
2.999	0.8931	0.8642	0.8610	0.8519	0.8508	0.8538	0.8473
4.025	0.7971	0.4559	0.5441	0.5879	0.6317	0.6678	0.6983
5.002	0.7945	0.1680	0.3711	0.5043	0.5270	0.5017	0.5774
5.994	0.7940	0.1680	0.3630	0.5060	0.5299	0.4821	0.4327
				$\omega\sqrt{\tau} = 0.09$			
1.999	0.9117	0.8847	0.8708	0.8629	0.8701	0.8805	0.8765
2.995	0.8158	0.6518	0.7522	0.7510	0.7457	0.7466	0.7418
4.026	0.7938	0.1439	0.2672	0.4642	0.5092	0.5442	0.5857
5.001	0.7926	0.1167	0.2588	0.4224	0.4694	0.4314	0.4518
5.992	0.7918	0.1197	0.2547	0.4166	0.4684	0.4304	0.3824

Table A78. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.9866	0.9763	1.0248	1.0467		1.0784	1.0851
3.005	0.9816	0.9811	0.9871	1.1587		1.1943	1.2079
3.999	1.0008	0.9972	1.2747	1.5891		1.2903	1.0573
5.016	0.9993	0.9928	1.6290	1.9637		1.4834	1.1965
6.002	0.9986	0.9930	1.6831	2.0321		1.5128	1.2177
				$\omega\sqrt{\tau} = 0.02$			
2.011	0.9865	0.9891	0.9909	1.0057		1.0215	1.0208
3.001	0.9638	0.9744	0.9668	1.0039		1.0327	1.0009
3.985	0.9651	0.9689	0.9496	0.9094		0.7608	0.8127
5.001	0.9675	0.9725	0.9517	0.9488		0.7667	0.6523
5.994	0.9650	0.9695	0.9490	0.9365		0.7581	0.6436
				$\omega\sqrt{\tau} = 0.06$			
2.006	0.9347	0.9536	0.9611	0.9526		0.9481	0.9413
2.999	0.8695	0.9054	0.8996	0.8769		0.8772	0.8582
4.025	0.8320	0.8660	0.8194	0.7130		0.5114	0.7018
5.002	0.8270	0.8630	0.8166	0.7093		0.5035	0.4800
5.994	0.8279	0.8623	0.8173	0.7101		0.5044	0.4109
				$\omega\sqrt{\tau} = 0.09$			
1.999	0.8741	0.9088	0.9212	0.9086		0.8886	0.8867
2.995	0.7512	0.8153	0.8070	0.7626		0.7484	0.7522
4.026	0.7037	0.7688	0.7351	0.6245		0.4412	0.5876
5.001	0.7039	0.7676	0.7359	0.6250		0.4419	0.3695
5.992	0.6964	0.7623	0.7319	0.6211		0.4394	0.3575

Table A79. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 20

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 1.76\text{; } A_{ej}/A_t = 0.24\text{; } \delta = 18°\text{; } h_u/h_l = 3.32\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9969	0.9987	0.9983	0.9959	1.0323	1.2246	1.2880	1.1814
2.998	0.9983	0.9943	0.9967	0.9906	1.4100	1.5721	1.3530	1.1450
4.013	0.9992	1.0009	0.9864	1.0742	3.2414	2.4805	1.9752	1.5573
5.007	1.0012	0.9970	0.9819	1.1710	3.4219	2.5814	2.0740	1.6339
6.004	0.9992	0.9884	0.9785	1.1816	3.4185	2.5824	2.0798	1.6354
				$\omega\sqrt{\tau} = 0.02$				
1.992	0.9975	0.9911	0.9945	0.9961	0.9973	1.1335	1.1855	1.0879
2.994	0.9988	0.9874	0.9937	0.9953	1.0510	1.2134	1.1090	0.9645
4.002	0.9974	0.9911	0.9948	0.9939	1.3389	1.4612	1.2176	0.9635
4.998	0.9988	0.9910	0.9946	0.9911	1.3840	1.4895	1.2420	0.9800
5.989	0.9983	0.9921	0.9952	0.9903	1.4021	1.5001	1.2535	0.9883
				$\omega\sqrt{\tau} = 0.06$				
1.991	0.9940	0.9732	0.9812	0.9847	0.9874	1.0215	1.0574	0.9962
2.978	0.9919	0.9501	0.9612	0.9624	0.9501	0.9360	0.8812	0.7896
4.004	0.9911	0.9452	0.9593	0.9617	0.9509	0.9430	0.8441	0.6866
4.998	0.9911	0.9449	0.9601	0.9621	0.9519	0.9444	0.8470	0.6883
5.992	0.9906	0.9448	0.9594	0.9610	0.9504	0.9422	0.8465	0.6874
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.9903	0.9441	0.9569	0.9599	0.9534	0.9460	0.9400	0.9137
2.995	0.9853	0.9040	0.9260	0.9227	0.8830	0.8169	0.7349	0.6720
4.003	0.9840	0.8960	0.9186	0.9142	0.8681	0.7886	0.6839	0.5583
4.999	0.9844	0.8949	0.9180	0.9131	0.8670	0.7873	0.6835	0.5571
5.993	0.9838	0.8950	0.9179	0.9129	0.8670	0.7875	0.6844	0.5576

Table A79. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9906	1.0558	1.0295	1.0303	1.0468	1.0604	1.0495
2.998	0.9720	1.2283	1.1672	1.1743	1.2123	1.2418	1.2186
4.013	0.9985	0.9861	1.0570	1.2566	1.4041	1.5278	1.6221
5.007	0.9818	0.7318	0.8143	0.8480	1.0634	1.0173	1.3375
6.004	0.9797	0.7286	0.8134	0.8451	1.0690	1.0222	0.9287
				$\omega\sqrt{\tau} = 0.02$			
1.992	1.0002	0.9994	0.9818	0.9816	0.9913	0.9964	0.9899
2.994	0.9976	1.0203	0.9827	0.9811	1.0013	1.0182	0.9991
4.002	0.9704	0.3413	0.4919	0.6113	0.7108	0.8055	0.9047
4.998	0.9677	0.3305	0.4877	0.6042	0.7008	0.6250	0.7607
5.989	0.9667	0.3204	0.4839	0.6076	0.7128	0.6309	0.5334
				$\omega\sqrt{\tau} = 0.06$			
1.991	0.9939	0.9328	0.9137	0.9128	0.9234	0.9333	0.9274
2.978	0.9840	0.8373	0.8119	0.8094	0.8231	0.8357	0.8278
4.004	0.9675	0.1823	0.3216	0.4404	0.5504	0.5622	0.6879
4.998	0.9662	0.1798	0.3197	0.4388	0.5557	0.4941	0.4599
5.992	0.9646	0.1660	0.3149	0.4324	0.5661	0.4964	0.4255
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.9840	0.8506	0.8298	0.8308	0.8460	0.8671	0.8620
2.995	0.9734	0.6950	0.6656	0.6679	0.6853	0.7089	0.7041
4.003	0.9671	0.1173	0.2527	0.3091	0.4937	0.4333	0.5577
4.999	0.9654	0.1108	0.2541	0.3031	0.4963	0.4347	0.3898
5.993	0.9637	0.1035	0.2551	0.2978	0.4994	0.4356	0.3906

Table A79. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.999	0.9753	0.9499	1.0437	1.0609		1.0963	1.1027
2.998	0.9660	0.9635	0.9766	1.3201		1.2892	1.3046
4.013	1.0005	1.0035	1.3830	1.6844		1.3491	1.1000
5.007	1.0022	1.0022	1.4644	1.8003		1.4221	1.1448
6.004	0.9984	0.9994	1.4577	1.8025		1.4247	1.1454
				$\omega\sqrt{\tau} = 0.02$			
1.992	0.9826	0.9898	0.9901	1.0002		1.0145	1.0154
2.994	0.9610	0.9702	0.9646	1.0097		1.0478	1.0349
4.002	0.9518	0.9620	0.9379	0.8790		0.6782	0.8727
4.998	0.9552	0.9641	0.9409	0.8862		0.6927	0.5798
5.989	0.9559	0.9647	0.9430	0.8910		0.6989	0.5840
				$\omega\sqrt{\tau} = 0.06$			
1.991	0.9283	0.9536	0.9567	0.9453		0.9430	0.9463
2.978	0.8507	0.8979	0.8869	0.8541		0.8476	0.8464
4.004	0.7992	0.8511	0.8094	0.7031		0.4995	0.6939
4.998	0.7992	0.8501	0.8097	0.7033		0.5000	0.4817
5.992	0.7933	0.8475	0.8084	0.7024		0.4990	0.4046
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.8501	0.8972	0.9060	0.8913		0.8780	0.8877
2.995	0.7247	0.8059	0.7961	0.7383		0.6934	0.7257
4.003	0.6559	0.7508	0.7232	0.6158		0.4394	0.5765
4.999	0.6459	0.7472	0.7223	0.6144		0.4387	0.3619
5.993	0.6421	0.7456	0.7222	0.6142		0.4387	0.3580

Table A80. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 21

$\left[\text{Top surface only; AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

	x/L							
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$				
1.999	0.9992	0.9877	0.9895	0.9867	0.9825	0.9988	1.0358	1.0714
2.992	1.0069	0.9924	0.9878	0.9907	1.3828	1.3508	1.1604	2.3143
3.996	1.0045	0.9783	0.9982	0.9884	1.6355	1.5134	1.2552	1.6485
4.998	1.0046	0.9927	1.0008	1.0133	1.8964	1.6744	1.3807	1.0553
5.993	1.0018	0.9968	0.9993	1.1030	2.1594	1.8418	1.5115	1.1597
				$\omega\sqrt{\tau} = 0.03$				
1.997	1.0025	0.9804	0.9887	0.9886	0.9825	0.9805	1.0022	1.0255
2.981	1.0062	0.9543	0.9659	0.9696	0.9652	0.9693	1.0035	1.0371
4.010	1.0136	0.8669	0.9110	0.9294	0.9334	0.9441	0.8310	1.1712
4.999	1.0157	0.8715	0.9085	0.9277	0.9317	0.9408	0.8296	0.6524
5.999	1.0148	0.8828	0.9135	0.9303	0.9387	0.9496	0.8380	0.6537
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.9956	0.8721	0.8959	0.9186	0.9260	0.9284	0.9417	0.9479
2.997	0.9945	0.7224	0.7734	0.8047	0.8402	0.8553	0.8638	0.8713
3.990	0.9918	0.4296	0.4836	0.6043	0.5656	0.5024	0.4484	0.6623
5.004	0.9941	0.4465	0.4873	0.6067	0.5658	0.5035	0.4375	0.4197
6.000	0.9930	0.4378	0.4991	0.6018	0.5620	0.5007	0.4360	0.3446
				$\omega\sqrt{\tau} = 0.12$				
1.993	0.9918	0.7846	0.8216	0.8451	0.8684	0.8805	0.8917	0.8968
2.996	0.9908	0.3882	0.3975	0.5201	0.5963	0.6575	0.6888	0.7033
3.987	0.9901	0.3080	0.3472	0.4911	0.4509	0.3923	0.3369	0.5029
5.013	0.9907	0.3071	0.3464	0.4905	0.4473	0.3891	0.3350	0.2844
5.999	0.9894	0.3166	0.3493	0.4905	0.4498	0.3904	0.3361	0.2639

Table A81. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 22

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 1.00\right]$

(a) Top surface

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.994	0.9927	0.9869	0.9885	0.9917	1.0400	1.1700	1.1691	1.0588
2.998	0.9940	0.9876	0.9896	0.9937	1.2113	1.1939	1.0036	0.8379
3.995	0.9945	0.9953	0.9966	1.0069	1.9296	1.6296	1.2821	0.9991
5.006	0.9955	0.9952	0.9758	2.2680	2.9563	2.3080	1.7871	1.3781
6.001	0.9993	0.9782	0.8867	4.5767	3.4636	2.8211	2.2204	1.7161
				$\omega\sqrt{\tau} = 0.03$				
2.002	0.9982	0.9864	0.9898	0.9943	1.0378	1.1598	1.1508	1.0251
3.000	0.9995	0.9768	0.9846	0.9922	1.1204	1.1319	0.9811	0.8611
3.994	1.0006	0.9890	0.9936	0.9802	1.5276	1.3864	1.1115	0.8772
5.004	1.0013	0.9936	0.9951	1.0090	1.9305	1.6128	1.2422	0.9520
6.003	1.0032	0.9939	0.9960	1.1839	2.2719	1.8237	1.3897	1.0673
				$\omega\sqrt{\tau} = 0.09$				
1.993	0.9941	0.9613	0.9712	0.9821	0.9893	1.0603	1.0697	0.9767
2.995	0.9909	0.9344	0.9504	0.9612	0.9660	0.9558	0.8265	0.7008
3.996	0.9903	0.9410	0.9578	0.9759	1.0793	1.0489	0.8466	0.6594
4.996	0.9893	0.9460	0.9638	0.9812	1.1541	1.1060	0.8853	0.6864
5.995	0.9904	0.9483	0.9658	0.9820	1.1687	1.1170	0.8928	0.6919
				$\omega\sqrt{\tau} = 0.12$				
1.997	0.9921	0.9373	0.9517	0.9661	0.9706	0.9961	1.0073	0.9385
2.992	0.9856	0.8970	0.9211	0.9329	0.9097	0.8604	0.7464	0.6197
3.997	0.9845	0.9005	0.9255	0.9446	0.9411	0.9012	0.7427	0.5824
4.998	0.9838	0.9028	0.9284	0.9472	0.9500	0.9138	0.7511	0.5874
5.993	0.9841	0.9037	0.9296	0.9475	0.9505	0.9154	0.7525	0.5881

Table A81. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.994	0.9787	0.9819	0.9870	0.9912	0.9998	1.0007	0.9942
2.998	0.9644	0.9649	0.9639	0.9686	0.9878	0.9960	0.9778
3.995	0.9582	0.9537	0.9612	0.9864	1.0131	1.0571	1.0353
5.006	0.9663	0.9515	0.9469	0.9774	1.0754	1.2114	1.2996
6.001	0.9876	0.9761	0.9701	0.9693	1.0459	1.1999	1.3855
				$\omega\sqrt{\tau} = 0.03$			
2.002	0.9928	0.9928	0.9887	0.9852	0.9857	0.9842	0.9810
3.000	0.9942	0.9950	0.9913	0.9852	0.9825	0.9760	0.9645
3.994	0.9642	0.9741	0.9715	0.9668	0.9602	0.9538	0.9403
5.004	0.9057	0.9290	0.9336	0.9354	0.9338	0.9291	0.9135
6.003	0.7805	0.7886	0.8112	0.8394	0.8638	0.8731	0.8771
				$\omega\sqrt{\tau} = 0.09$			
1.993	0.9369	0.9539	0.9556	0.9540	0.9526	0.9502	0.9485
2.995	0.8498	0.8950	0.9024	0.9013	0.8989	0.8947	0.8929
3.996	0.6921	0.7558	0.7699	0.7732	0.7778	0.7817	0.7750
4.996	0.5033	0.2920	0.5136	0.5489	0.5490	0.5872	0.6534
5.995	0.5024	0.2926	0.5171	0.5455	0.5262	0.4543	0.5115
				$\omega\sqrt{\tau} = 0.12$			
1.997	0.8798	0.9175	0.9239	0.9230	0.9214	0.9202	0.9185
2.992	0.7482	0.8189	0.8359	0.8350	0.8347	0.8316	0.8297
3.997	0.5692	0.6469	0.6644	0.6679	0.6729	0.6788	0.6745
4.998	0.4610	0.2826	0.4213	0.4683	0.4757	0.4490	0.5415
5.993	0.4577	0.2867	0.4240	0.4716	0.4732	0.4172	0.3987

Table A81. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.994	0.9826	0.9807	0.9803	0.9874		1.0127	1.0290
2.998	0.9443	0.9406	0.9159	0.9998		1.0194	1.0162
3.995	0.9724	0.9734	0.9668	0.9725		1.0304	1.0867
5.006	0.9913	0.9885	0.9761	1.4672		1.2919	1.0583
6.001	0.9918	0.9799	1.3065	2.2228		1.5772	1.2788
				$\omega\sqrt{\tau} = 0.03$			
2.002	0.9900	0.9925	0.9933	0.9942		0.9869	0.9928
3.000	0.9743	0.9763	0.9635	0.9785		1.0266	0.9699
3.994	0.9610	0.9664	0.9592	0.9429		0.9566	0.9600
5.004	0.9494	0.9534	0.9314	0.8783		0.8156	0.8128
6.003	0.9445	0.9488	0.9240	0.9211		0.8808	0.7823
				$\omega\sqrt{\tau} = 0.09$			
1.993	0.9412	0.9545	0.9645	0.9607		0.9573	0.9500
2.995	0.8711	0.8965	0.8996	0.8912		0.9038	0.8969
3.996	0.8094	0.8328	0.7908	0.7095		0.6904	0.7817
4.996	0.8017	0.8254	0.7748	0.6750		0.4843	0.5832
5.995	0.8053	0.8275	0.7774	0.6776		0.4867	0.4156
				$\omega\sqrt{\tau} = 0.12$			
1.997	0.8982	0.9214	0.9368	0.9323		0.9234	0.9167
2.992	0.7964	0.8330	0.8361	0.8221		0.8333	0.8331
3.997	0.7372	0.7721	0.7305	0.6391		0.5467	0.6909
4.998	0.7346	0.7669	0.7210	0.6182		0.4357	0.5255
5.993	0.7390	0.7668	0.7215	0.6186		0.4357	0.3699

Table A82. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 23

$\left[\text{AB power; } A_t = 6.00\text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 2.66\right]$

(a) Top surface

				x/L				
				$\omega\sqrt{\tau} = 0.00$				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.9937	0.9911	0.9926	0.9919	0.9930	1.0517	1.1270	1.1015
3.002	0.9952	0.9811	0.9911	0.9934	1.0275	1.2381	1.1132	0.9232
3.994	0.9961	1.0097	0.9975	0.9426	2.7715	2.4050	1.8285	1.4167
5.002	0.9953	1.0072	0.9735	1.1736	3.8232	2.8705	2.2542	1.7575
6.000	1.0001	0.9785	0.9491	1.4995	3.9461	3.1078	2.4630	1.9281
				$\omega\sqrt{\tau} = 0.03$				
2.006	0.9946	0.9862	0.9920	0.9923	0.9930	1.0413	1.0962	1.0494
3.014	0.9950	0.9734	0.9837	0.9829	0.9814	1.0375	0.9967	0.8925
4.007	0.9996	0.9872	0.9930	0.9952	1.1111	1.3517	1.1695	0.9393
5.010	1.0012	0.9912	0.9954	0.9916	1.4471	1.6325	1.3269	1.0334
6.002	1.0013	0.9926	0.9965	0.9833	1.6454	1.7674	1.4164	1.0971
				$\omega\sqrt{\tau} = 0.09$				
1.997	0.9903	0.9641	0.9744	0.9785	0.9800	0.9870	1.0196	0.9911
2.981	0.9854	0.9276	0.9463	0.9475	0.9287	0.8972	0.8490	0.8318
4.007	0.9849	0.9301	0.9494	0.9555	0.9476	0.9548	0.8635	0.6939
4.999	0.9845	0.9299	0.9491	0.9563	0.9490	0.9600	0.8678	0.6956
6.001	0.9851	0.9308	0.9496	0.9569	0.9505	0.9650	0.8722	0.6987
				$\omega\sqrt{\tau} = 0.12$				
1.992	0.9863	0.9443	0.9596	0.9654	0.9651	0.9647	0.9697	0.9541
2.975	0.9788	0.8950	0.9190	0.9201	0.8895	0.8376	0.7709	0.7922
4.006	0.9770	0.8859	0.9140	0.9179	0.8854	0.8252	0.7280	0.5873
4.997	0.9767	0.8865	0.9135	0.9181	0.8859	0.8263	0.7296	0.5869
6.000	0.9772	0.8856	0.9131	0.9175	0.8854	0.8257	0.7292	0.5857

Table A82. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.9201	0.9884	0.9975	1.0033	1.0136	1.0159	1.0049
3.002	0.7621	1.0156	1.0349	1.0533	1.0903	1.1151	1.0859
3.994	0.9392	0.9368	1.0148	1.2059	1.3758	1.5256	1.5961
5.002	0.9853	0.9684	0.9778	1.1034	1.2856	1.4755	1.6480
6.000	0.9731	0.9711	0.9833	0.9961	1.1356	1.3071	1.5132
				$\omega\sqrt{\tau} = 0.03$			
2.006	0.9976	0.9934	0.9864	0.9848	0.9876	0.9862	0.9787
3.014	0.9968	0.9921	0.9771	0.9702	0.9753	0.9773	0.9556
4.007	0.9757	0.9862	0.9778	0.9640	0.9560	0.9608	0.9356
5.010	0.8681	0.9208	0.9278	0.9252	0.9128	0.9136	0.9091
6.002	0.6948	0.4594	0.7346	0.7787	0.8090	0.8243	0.8458
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.9423	0.9590	0.9592	0.9570	0.9554	0.9528	0.9487
2.981	0.8470	0.9069	0.9118	0.9094	0.9063	0.9015	0.8966
4.007	0.6771	0.6715	0.7203	0.7272	0.7426	0.7654	0.7733
4.999	0.6749	0.2508	0.4053	0.4912	0.5338	0.5761	0.6174
6.001	0.6748	0.2478	0.3959	0.4902	0.5147	0.4586	0.4980
				$\omega\sqrt{\tau} = 0.12$			
1.992	0.8825	0.9265	0.9315	0.9306	0.9287	0.9267	0.9240
2.975	0.7462	0.7382	0.8523	0.8509	0.8470	0.8434	0.8394
4.006	0.6707	0.5054	0.5782	0.6223	0.6387	0.6549	0.6614
4.997	0.6705	0.2450	0.2665	0.4388	0.4899	0.5199	0.5395
6.000	0.6708	0.2465	0.2593	0.4274	0.4682	0.4191	0.4055

Table A82. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.008	0.9706	0.9596	0.9818	1.0007		1.0353	1.0551
3.002	0.9361	0.9327	0.9281	1.0112		1.1378	1.1650
3.994	1.0002	0.9934	1.0042	1.3727		1.1198	1.1743
5.002	1.0010	0.9916	1.2251	1.9496		1.5568	1.2538
6.000	0.9987	0.9900	1.4469	2.2207		1.6965	1.3624
				$\omega\sqrt{\tau} = 0.03$			
2.006	0.9840	0.9833	0.9826	0.9825		0.9927	1.0051
3.014	0.9570	0.9542	0.9163	0.9754		1.0105	0.9795
4.007	0.9621	0.9658	0.9591	0.9354		0.9130	0.9355
5.010	0.9596	0.9593	0.9426	0.8889		0.7515	0.7225
6.002	0.9600	0.9604	0.9429	0.9029		0.7666	0.6464
				$\omega\sqrt{\tau} = 0.09$			
1.997	0.9472	0.9579	0.9684	0.9670		0.9624	0.9559
2.981	0.8739	0.8960	0.9030	0.8915		0.9118	0.9059
4.007	0.8224	0.8421	0.8063	0.7170		0.7074	0.8003
4.999	0.8180	0.8400	0.7986	0.6992		0.4945	0.6166
6.001	0.8202	0.8415	0.8000	0.7005		0.4959	0.4379
				$\omega\sqrt{\tau} = 0.12$			
1.992	0.9106	0.9296	0.9459	0.9445		0.9368	0.9310
2.975	0.7989	0.8347	0.8400	0.8284		0.8421	0.8449
4.006	0.7436	0.7775	0.7432	0.6461		0.5179	0.6830
4.997	0.7411	0.7762	0.7388	0.6363		0.4461	0.4852
6.000	0.7432	0.7753	0.7381	0.6357		0.4458	0.3628

Table A83. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 24

$\left[\text{AB power; } A_t = 6.00 \text{ in}^2\text{; } A_e/A_t = 2.00\text{; } A_{ej}/A_t = 0.36\text{; } \delta = 18°\text{; } h_u/h_l = 4.59\right]$

(a) Top surface

				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
				$\omega\sqrt{\tau} = 0.00$				
2.003	0.9984	0.9944	0.9953	0.9957	0.9954	1.0300	1.1083	1.1081
2.997	0.9972	0.9866	0.9904	0.9930	1.0012	1.2569	1.1819	1.0257
4.009	1.0032	1.0021	0.9943	0.9331	2.8038	2.6196	1.9874	1.5345
5.001	1.0026	0.9978	0.9810	0.9727	4.0609	3.0178	2.3699	1.8534
5.993	1.0044	0.9927	0.9670	1.0432	4.2620	3.1587	2.5018	1.9668
				$\omega\sqrt{\tau} = 0.03$				
1.998	0.9983	0.9886	0.9918	0.9919	0.9931	1.0099	1.0670	1.0549
3.001	0.9979	0.9703	0.9825	0.9810	0.9755	0.9935	0.9887	0.9261
3.997	1.0000	0.9864	0.9916	0.9949	1.0556	1.3796	1.2098	0.9599
5.006	0.9998	0.9925	0.9945	0.9949	1.2454	1.6209	1.3649	1.0710
5.967	0.9979	0.9899	0.9913	0.9923	1.2359	1.6033	1.3538	1.0679
				$\omega\sqrt{\tau} = 0.09$				
1.990	0.9924	0.9679	0.9737	0.9768	0.9760	0.9768	0.9890	0.9797
2.995	0.9850	0.9326	0.9425	0.9429	0.9222	0.8892	0.8526	0.8672
3.990	0.9829	0.9296	0.9414	0.9449	0.9269	0.8969	0.8287	0.6776
5.006	0.9816	0.9302	0.9412	0.9452	0.9284	0.8995	0.8319	0.6780
5.999	0.9821	0.9295	0.9394	0.9435	0.9254	0.8943	0.8257	0.6739
				$\omega\sqrt{\tau} = 0.12$				
1.996	0.9879	0.9487	0.9577	0.9617	0.9584	0.9544	0.9481	0.9364
2.991	0.9776	0.9022	0.9130	0.9139	0.8807	0.8301	0.7770	0.8111
3.990	0.9741	0.8922	0.9039	0.9065	0.8680	0.8026	0.7076	0.5796
4.990	0.9741	0.8903	0.9037	0.9046	0.8662	0.8004	0.7054	0.5705
6.018	0.9735	0.8913	0.9050	0.9057	0.8678	0.8030	0.7085	0.5709

Table A83. Continued

(b) Bottom surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9277	1.0065	1.0104	1.0149	1.0239	1.0254	1.0124
2.997	0.8563	1.1176	1.1262	1.1376	1.1689	1.1906	1.1601
4.009	0.9588	0.9561	1.0649	1.2939	1.4785	1.6335	1.7177
5.001	0.9876	0.9723	0.9884	1.1270	1.3181	1.5174	1.7108
5.993	0.9535	0.9435	0.9623	0.9924	1.1309	1.3064	1.5069
				$\omega\sqrt{\tau} = 0.03$			
1.998	0.9947	0.9938	0.9862	0.9867	0.9913	0.9902	0.9809
3.001	0.9939	0.9921	0.9725	0.9679	0.9777	0.9844	0.9609
3.997	0.9790	0.9702	0.9381	0.9137	0.9269	0.9774	0.9785
5.006	0.7979	0.7691	0.8251	0.8358	0.8700	0.9069	0.9406
5.967	0.7467	0.4084	0.6208	0.6630	0.6775	0.6489	0.7863
				$\omega\sqrt{\tau} = 0.09$			
1.990	0.9509	0.9493	0.9479	0.9454	0.9443	0.9430	0.9384
2.995	0.8826	0.8872	0.8899	0.8860	0.8838	0.8805	0.8721
3.990	0.7395	0.6462	0.6670	0.6639	0.6825	0.7212	0.7412
5.006	0.7336	0.3252	0.4493	0.5290	0.5511	0.5773	0.6047
5.999	0.7314	0.1950	0.3355	0.4682	0.4991	0.4535	0.5075
				$\omega\sqrt{\tau} = 0.12$			
1.996	0.9093	0.9108	0.9118	0.9084	0.9071	0.9067	0.9024
2.991	0.7863	0.7092	0.8280	0.8292	0.8256	0.8219	0.8142
3.990	0.7304	0.5217	0.5670	0.5742	0.5841	0.6133	0.6321
4.990	0.7283	0.1938	0.2616	0.3909	0.4682	0.5028	0.5289
6.018	0.7300	0.1943	0.2611	0.3831	0.4508	0.4091	0.4019

Table A83. Concluded

(c) Side surface

				$\omega\sqrt{\tau} = 0.00$			
				x/L			
NPR	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.003	0.9638	0.9445	0.9998	1.0155		1.0465	1.0649
2.997	0.9746	0.9754	0.9590	1.0100		1.2703	1.2511
4.009	0.9987	0.9990	1.0341	1.5186		1.1776	1.2038
5.001	0.9988	0.9951	1.2897	2.0230		1.6077	1.2977
5.993	1.0016	0.9902	1.4161	2.1797		1.7055	1.3658
				$\omega\sqrt{\tau} = 0.03$			
1.998	0.9810	0.9763	0.9755	0.9800		0.9990	1.0148
3.001	0.9466	0.9423	0.9007	0.9582		1.0147	0.9897
3.997	0.9579	0.9555	0.9444	0.8933		0.9416	1.0428
5.006	0.9602	0.9597	0.9453	0.8945		0.7279	0.6811
5.967	0.9560	0.9560	0.9384	0.8819		0.7107	0.5930
				$\omega\sqrt{\tau} = 0.09$			
1.990	0.9422	0.9516	0.9649	0.9608		0.9503	0.9515
2.995	0.8625	0.8865	0.8939	0.8778		0.8979	0.8857
3.990	0.8108	0.8343	0.8021	0.7105		0.6824	0.7869
5.006	0.8070	0.8320	0.7963	0.6981		0.4947	0.5931
5.999	0.8036	0.8303	0.7935	0.6948		0.4913	0.4167
				$\omega\sqrt{\tau} = 0.12$			
1.996	0.9025	0.9219	0.9391	0.9343		0.9164	0.9167
2.991	0.7866	0.8226	0.8293	0.8107		0.8146	0.8188
3.990	0.7304	0.7646	0.7375	0.6413		0.4870	0.6651
4.990	0.7248	0.7652	0.7302	0.6292		0.4426	0.4537
6.018	0.7268	0.7632	0.7320	0.6306		0.4435	0.3608

Table A84. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 25

$\left[\text{Top surface only; dry power; } A_t = 3.208 \text{ in}^2\text{; } A_e/A_t = 1.66\text{; } A_{ej}/A_t = 0.23\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.004	0.9806	0.9941	0.9907	0.9833	1.0393	1.1438	1.2465	1.3409
3.005	0.9735	1.0023	0.9997	1.2019	1.3161	1.0686	1.6282	1.9902
3.997	0.9774	1.0035	0.9968	1.7709	1.6682	1.3278	1.0918	1.7121
5.003	0.9810	1.0006	0.9947	2.0122	1.8005	1.4412	1.1912	1.0148
5.990	0.9849	0.9988	0.9952	2.0310	1.8149	1.4457	1.1921	1.0147
6.997	0.9885	0.9959	0.9934	2.0523	1.8217	1.4463	1.1972	1.0245
7.990	0.9909	0.9968	0.9938	2.0674	1.8332	1.4579	1.2027	1.0223
9.012	0.9918	0.9957	0.9936	2.0822	1.8430	1.4666	1.2102	1.0280
10.001	0.9930	0.9964	0.9932	2.0862	1.8516	1.4729	1.2152	1.0331
				$\omega\sqrt{\tau} = 0.02$				
2.000	1.0048	0.9815	0.9771	0.9877	0.9908	1.0346	1.1041	1.1767
2.990	1.0159	0.9704	0.9687	0.9739	0.9739	0.8364	1.3451	1.5436
4.003	1.0109	0.9577	0.9548	0.9591	0.9433	0.8026	0.6718	1.0376
4.996	1.0082	0.9634	0.9592	0.9633	0.9645	0.8182	0.6840	0.5835
6.004	1.0051	0.9620	0.9580	0.9626	0.9696	0.8204	0.6860	0.5831
7.000	1.0035	0.9599	0.9549	0.9608	0.9674	0.8179	0.6838	0.5818
8.011	1.0055	0.9620	0.9572	0.9630	0.9713	0.8197	0.6855	0.5835
8.992	1.0040	0.9598	0.9553	0.9615	0.9683	0.8177	0.6842	0.5823
9.994	1.0044	0.9617	0.9579	0.9651	0.9794	0.8245	0.6906	0.5887
				$\omega\sqrt{\tau} = 0.05$				
1.987	1.0023	0.9510	0.9442	0.9637	0.9618	0.9873	1.0541	1.1154
3.002	1.0054	0.8795	0.8573	0.8959	0.9244	1.0157	1.0937	1.1723
3.995	1.0037	0.8636	0.8325	0.8512	0.7505	0.6353	0.5417	0.8269
4.994	1.0019	0.8666	0.8371	0.8568	0.7579	0.6414	0.5473	0.4785
6.010	0.9999	0.8649	0.8355	0.8579	0.7595	0.6419	0.5479	0.4755
7.001	1.0006	0.8644	0.8334	0.8588	0.7603	0.6416	0.5476	0.4749
8.010	1.0002	0.8655	0.8357	0.8614	0.7630	0.6439	0.5499	0.4766
9.000	1.0004	0.8647	0.8359	0.8612	0.7621	0.6425	0.5493	0.4766
9.996	1.0003	0.8630	0.8368	0.8599	0.7602	0.6404	0.5477	0.4754
				$\omega\sqrt{\tau} = 0.08$				
1.994	1.0004	0.8890	0.8679	0.9068	0.9291	0.9438	0.9804	1.0270
3.005	1.0011	0.7701	0.6439	0.7456	0.6283	0.6177	0.8468	0.9409
4.002	0.9988	0.7694	0.6417	0.7563	0.6383	0.5296	0.4528	0.6646
4.996	0.9986	0.7667	0.6292	0.7559	0.6367	0.5287	0.4532	0.4025
6.006	0.9980	0.7667	0.6275	0.7603	0.6408	0.5317	0.4567	0.4025
6.997	0.9968	0.7666	0.6289	0.7616	0.6423	0.5318	0.4561	0.4021
8.018	0.9973	0.7658	0.6303	0.7618	0.6431	0.5319	0.4556	0.4000
8.986	0.9976	0.7662	0.6333	0.7589	0.6421	0.5304	0.4540	0.3985
10.012	0.9970	0.7680	0.6421	0.7504	0.6396	0.5285	0.4521	0.3964

Table A85. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 26

$\left[\text{Top surface only; dry power; } A_t = 2.962 \text{ in}^2\text{; } A_e/A_t = 1.79\text{; } A_{ej}/A_t = 0.25\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
2.010	0.9896	1.0000	0.9984	0.9972	1.0547	1.1614	1.2631	1.3574
2.993	0.9881	0.9975	0.9976	1.2641	1.2903	1.0184	1.7426	2.0758
3.998	0.9931	1.0025	0.9982	1.8239	1.6150	1.2589	1.0140	1.8456
4.999	0.9943	0.9997	0.9941	2.1804	1.8138	1.4185	1.1453	0.9859
5.994	0.9937	0.9979	0.9933	2.1993	1.8264	1.4283	1.1532	0.9541
6.978	0.9969	0.9977	0.9929	2.2228	1.8342	1.4316	1.1575	0.9589
7.987	0.9964	0.9992	0.9923	2.2356	1.8422	1.4393	1.1625	0.9626
8.983	0.9959	0.9986	0.9922	2.2566	1.8493	1.4442	1.1670	0.9671
9.994	0.9969	0.9977	0.9916	2.2750	1.8576	1.4499	1.1717	0.9694
				$\omega\sqrt{\tau}$ = 0.02				
1.996	1.0043	0.9904	0.9858	0.9924	1.0188	1.0900	1.1686	1.2432
3.000	1.0191	0.9722	0.9640	0.9740	0.9629	0.7966	1.3883	1.6286
4.020	1.0091	0.9725	0.9676	0.9789	0.9997	0.8173	0.6680	1.1636
4.994	1.0052	0.9681	0.9607	0.9717	0.9827	0.8062	0.6594	0.6161
6.010	1.0036	0.9697	0.9625	0.9738	0.9979	0.8167	0.6677	0.5563
6.998	1.0021	0.9692	0.9630	0.9766	1.0101	0.8239	0.6734	0.5599
7.994	1.0043	0.9715	0.9634	0.9773	1.0097	0.8245	0.6737	0.5603
8.986	1.0037	0.9643	0.9548	0.9671	0.9772	0.8017	0.6569	0.5467
9.993	1.0049	0.9701	0.9624	0.9758	1.0052	0.8201	0.6704	0.5574
				$\omega\sqrt{\tau}$ = 0.05				
1.988	1.0053	0.9497	0.9382	0.9469	0.9534	0.9899	1.0551	1.1192
2.993	1.0045	0.9003	0.8668	0.9230	0.9478	0.9835	1.0545	1.1285
3.997	0.9996	0.8817	0.8385	0.8628	0.7588	0.6322	0.5286	0.9110
4.996	1.0003	0.8816	0.8378	0.8649	0.7637	0.6363	0.5307	0.5273
5.981	0.9988	0.8794	0.8356	0.8662	0.7651	0.6377	0.5328	0.4510
6.990	0.9990	0.8795	0.8333	0.8682	0.7674	0.6383	0.5336	0.4518
7.987	0.9991	0.8806	0.8356	0.8715	0.7714	0.6418	0.5367	0.4541
8.988	0.9988	0.8787	0.8320	0.8711	0.7704	0.6402	0.5353	0.4528
9.998	0.9988	0.8791	0.8336	0.8727	0.7716	0.6405	0.5360	0.4544
				$\omega\sqrt{\tau}$ = 0.08				
1.997	1.0003	0.9073	0.8830	0.9014	0.9223	0.9473	0.9980	1.0505
2.990	0.9995	0.7997	0.6508	0.7564	0.6505	0.5967	0.9385	1.0455
3.989	0.9982	0.7961	0.6385	0.7567	0.6394	0.5247	0.4399	0.7163
4.987	0.9974	0.7957	0.6353	0.7518	0.6379	0.5247	0.4412	0.4057
5.995	0.9967	0.7961	0.6294	0.7522	0.6387	0.5240	0.4407	0.3780
7.002	0.9967	0.7966	0.6278	0.7550	0.6411	0.5245	0.4404	0.3771
8.001	0.9965	0.7962	0.6259	0.7547	0.6401	0.5235	0.4398	0.3765
8.987	0.9963	0.7959	0.6285	0.7550	0.6403	0.5234	0.4398	0.3761
9.987	0.9957	0.7951	0.6275	0.7548	0.6394	0.5223	0.4390	0.3754

Table A86. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 27

$\left[\text{Top surface only; AB power; } A_t = 5.499 \text{ in}^2\text{; } A_e/A_t = 1.66\text{; } A_{ej}/A_t = 0.13\text{; } \delta = 0°\text{; } h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau}$ = 0.00				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.991	0.9839	0.9773	0.9913	1.0598	1.4420	1.6813	1.8296	1.9479
2.996	0.9816	1.0057	0.9993	1.4037	1.5336	1.2890	1.0559	1.9650
4.005	0.9835	0.9995	0.9970	1.9898	1.9175	1.5967	1.3076	1.1066
4.991	0.9898	1.0000	0.9938	2.0285	1.9483	1.6223	1.3292	1.1099
6.000	0.9942	1.0003	0.9943	2.0412	1.9609	1.6352	1.3398	1.1202
				$\omega\sqrt{\tau}$ = 0.01				
1.998	1.0050	0.9708	0.9813	0.9837	1.0086	1.0814	1.1546	1.2227
3.008	1.0126	0.9644	0.9714	1.0216	1.1894	1.0246	0.8466	1.5382
3.996	1.0125	0.9584	0.9708	1.0162	1.1890	1.0245	0.8467	0.7233
4.985	1.0046	0.9485	0.9635	0.9996	1.1686	1.0095	0.8357	0.6978
5.994	1.0071	0.9476	0.9665	1.0073	1.1834	1.0187	0.8414	0.7024
				$\omega\sqrt{\tau}$ = 0.03				
1.999	0.9994	0.9004	0.9371	0.9549	0.9606	1.0062	1.0646	1.1225
3.009	1.0016	0.7636	0.8023	0.8811	0.8548	0.7538	0.6332	1.1280
3.993	1.0007	0.7615	0.8093	0.8843	0.8640	0.7614	0.6390	0.5721
4.989	1.0012	0.7570	0.8123	0.8845	0.8641	0.7629	0.6413	0.5399
5.989	1.0020	0.7599	0.8227	0.8909	0.8757	0.7697	0.6450	0.5432
				$\omega\sqrt{\tau}$ = 0.05				
1.995	0.9964	0.8165	0.8300	0.9119	0.9232	0.9529	1.0005	1.0492
2.985	0.9978	0.6037	0.5358	0.7115	0.6373	0.5482	0.4802	0.8369
3.995	0.9980	0.6070	0.5324	0.7094	0.6344	0.5461	0.4621	0.4654
4.994	0.9973	0.6046	0.5181	0.7198	0.6423	0.5528	0.4679	0.3967
5.995	0.9984	0.6034	0.5016	0.7196	0.6403	0.5499	0.4644	0.3939

Table A87. Shroud Static Pressure Ratio $(p/p_{t,s})$ for Configuration 28

$\left[\text{Top surface only; AB power; } A_t = 5.079 \text{ in}^2;\ A_e/A_t = 1.79;\ A_{ej}/A_t = 0.14;\ \delta = 0°;\ h_u/h_l = 1.00\right]$

				$\omega\sqrt{\tau} = 0.00$				
				x/L				
NPR	-0.5121	-0.0696	0.0235	0.2097	0.3959	0.5821	0.7683	0.9545
1.983	0.9957	0.9856	0.9764	0.9704	1.0373	1.1139	1.1805	1.2380
2.997	0.9971	0.9982	0.9967	1.3255	1.4820	1.2361	1.0409	2.0316
3.983	0.9966	1.0015	0.9973	1.9001	1.8453	1.5187	1.2309	1.5587
4.996	0.9978	0.9990	0.9975	2.0658	1.9522	1.6121	1.3105	1.0797
5.996	0.9975	0.9999	0.9937	2.0947	1.9652	1.6174	1.3127	1.0827
				$\omega\sqrt{\tau} = 0.01$				
2.005	0.9985	0.9705	0.9715	0.9641	1.0168	1.0873	1.1497	1.2035
2.985	1.0115	0.9611	0.9661	1.0105	1.1569	0.9876	0.8481	1.6215
3.997	1.0144	0.9613	0.9667	1.0046	1.1576	0.9897	0.8102	1.0020
4.994	1.0127	0.9527	0.9661	0.9977	1.1444	0.9826	0.8063	0.6665
6.003	1.0090	0.9380	0.9591	0.9862	1.1149	0.9613	0.7908	0.6553
				$\omega\sqrt{\tau} = 0.03$				
2.004	0.9986	0.9181	0.9386	0.9425	0.9768	1.0376	1.0941	1.1431
3.002	1.0010	0.7801	0.8104	0.8887	0.8632	0.7547	0.6906	1.2303
3.993	1.0004	0.7731	0.8100	0.8907	0.8686	0.7587	0.6291	0.7964
4.999	0.9979	0.7404	0.7860	0.8758	0.8434	0.7371	0.6123	0.5097
6.004	0.9991	0.7773	0.8274	0.8964	0.8799	0.7705	0.6400	0.5333
				$\omega\sqrt{\tau} = 0.05$				
1.997	0.9970	0.8163	0.8575	0.9004	0.9337	0.9850	1.0315	1.0727
3.001	0.9967	0.6189	0.5367	0.7073	0.6299	0.5377	0.6003	0.8813
4.994	0.9970	0.6168	0.4854	0.7368	0.6556	0.5610	0.4678	0.3921
6.001	0.9962	0.6155	0.4758	0.7413	0.6614	0.5663	0.4719	0.3960

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A series of thrust-vectored axisymmetric ejector nozzles were designed and experimentally tested for internal performance and pumping characteristics at the Langley Research Center. This study indicated that discontinuities in the performance occurred at low primary nozzle pressure ratios and that these discontinuities were mitigated by decreasing expansion area ratio. The addition of secondary flow increased the performance of the nozzles. The mid-to-high range of secondary flow provided the most overall improvements, and the greatest improvements were seen for the largest ejector area ratio. Thrust vectoring the ejector nozzles caused a reduction in performance and discharge coefficient. With or without secondary flow, the vectored ejector nozzles produced thrust vector angles that were equivalent to or greater than the geometric turning angle. With or without secondary flow, spacing ratio (ejector passage symmetry) had little effect on performance (gross thrust ratio), discharge coefficient, or thrust vector angle. For the unvectored ejectors, a small amount of secondary flow was sufficient to reduce the pressure levels on the shroud to provide cooling, but for the vectored ejector nozzles, a larger amount of secondary air was required to reduce the pressure levels to provide cooling.

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